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# **East Europe Report**

**ECONOMIC AND INDUSTRIAL AFFAIRS**

**No. 1959**

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NATIONAL ENERGY PROBLEMS ANALYZED

Warsaw NOWE DROGI in Polish No 9, Sep 79 pp 101-110

[Article by Marek Jaczewski: "Energy Problems of the Country"]

[Text] Energy problems have been in the center of interest of world opinion for 6 years. One of the facts characterizing the world energy situation is that the United States and the countries of Western Europe consume approximately 50 percent of the world consumption of fuels, while producing only approximately 30 percent by themselves. Many international studies assume that this situation will also last into the 21st century.

The experience of recent years demonstrates that the producers of fuels, especially crude oil and gas, realize the desperate situation in which the highly developed capitalist countries find themselves, and have been trying to draw the maximum benefits from it for themselves, and this obviously intensifies the various stresses between both producers and consumers. A very essential role, especially in highly developed countries, is played by difficulties associated with a switch of technology to another type of fuel, which is always expensive and requires time, even if possible. These circumstances clearly favor the producers of crude oil.

It is worth calling attention to the fact that economic undertakings in the fuel and energy sector are usually long-lasting and capital-intensive (for example, the construction of mines takes approximately 10 years, of electric power plants 5-10 years, of refineries approximately 5 years and so on). Under the conditions of capitalist countries enterprises are not always able to make large investments over a very long period before return on the outlays. This is one of the reasons for failure in many of the energy programs worked out so far in capitalist countries.

One of the major factors complicating the development of the fuel and energy sector is the protection of the natural environment, especially in densely populated industrial regions.

The world energy crisis is not a short-term, transitory event. It is a result of the fact that at present the world is consuming unrenovable energy resources at a faster and faster rate, while the deposits of crude oil and gas, however large, are being exhausted faster and faster. It is not necessary to agree with pessimistic views that crude oil will only last for 30 years, but the fact is that it is not increasing. Up to now technologies for obtaining liquid fuels from coal are not competitive from the economic standpoint. Similarly gas extracted from coal is approximately 10 times more expensive in world prices than imported gas. The increase in the prices for oil and gas on the one hand, and improvements in processing coal on the other, will probably lead in time to a balanced situation.

The development of nuclear energy is also a factor which in time will reduce the current dependence of industrial countries on supplies of crude oil and gas. At the present time approximately 10 percent of the electrical energy in the United States, England, France, FRG and Sweden is produced in nuclear power plants. The expansion of atomic energy is meeting definite social resistance, associated with protection of the environment, but nevertheless at present it is the only real answer to the energy problems of people on a par with technological progress.

It is worth calling attention to the fact that currently the construction of atomic reactors must be regarded as a temporary solution in view of their very low efficiency (on the order 6 percent). A considerably more promising solution is found in breeder and high-temperature reactors, but these are still in the stage of semi-industrial investigation. The political requirements of atomic energy are no less than those of a supply of crude oil. This is connected with the fact that the production of electrical energy produces considerable quantities of fissionable plutonium (approximately 170 kg annually in a 1000 MW electric power plant), which is extremely toxic and one of the basic strategic materials.

The universality of the energy crisis is a result of the fact that every human being benefits from energy in its various forms in the modern world (mainly from electrical energy, fuel for heating and fuel for vehicles). Maintenance of the current economic level, and to a greater extent further economic development in the highly industrialized countries obviously requires the consumption of tremendous quantities of energy still imported from the developing countries. The latter also require considerable quantities of energy for the rapid modernization of their own economy in the current phase of industrialization, primarily in the form of crude oil. This is why energy problems have assumed such a broad political and social significance.

In contradistinction to the capitalist countries, dependent not only on the influences of changes in the world situation but also on acute internal discord, the socialist countries are subject to fluctuations in

the world situation to a lesser degree, thanks to the blessings of their system, their planned economy and their multilateral, multiyear agreements.

For many years socialist countries have used a combined economy (the production of electrical energy and heat in electricity-heat generating plants), which uses fuel at an efficiency of approximately 80 percent, compared to approximately 35 percent in producing electrical energy alone, or 40-50 percent in producing only heat energy in local boilers. Supplies of fuel are guaranteed by multiyear agreements. A joint electrical energy system, currently the largest in Europe, has been established, and this makes it possible to use time differences to cover peak-period loads and mutual reserves for cases of breakdowns.

In the electrical energy system of the CEMA countries Poland is second with respect to the amount of energy produced and consequently plays a very important role.

The increase in the needs for fuel and energy is higher in the CEMA countries than the world average, and more rapid than in the industrialized countries because of the considerably faster economic development of the socialist countries.

In contradistinction to the capitalist countries, which mainly consume crude oil and gas (more than 70 percent of their national needs) and are consequently exposed to all the results of disturbances on the world oil market, the socialist countries consume very large quantities of hard coal and brown coal, approximately 45 percent of their needs on the average (from 23 percent in Romania to 83 percent in Poland).

The progressive economic integration of the socialist countries also increases their stability in the energy field. This concerns fuels, electrical energy, nuclear energy and the production of mining and energy machinery and equipment, embraced by wider and wider co-production within the CEMA framework.

The European socialist countries are very well aware of the fact that the energy problems are of a worldwide nature and cannot be completely solved within the framework of one camp.

This is why energy considerations were advanced as one of the problems for broader international cooperation at the Helsinki Conference. For a more concrete awareness of the economic significance of this problem, it is worth emphasizing that, for example, a union of the electrical energy systems of Europe could currently reduce the necessary installed power of their electrical plants by approximately 10,000-15,000 MW, that is, by an amount equal to 60 percent of the power of all electrical plants in Poland and greater than the power of all the electrical power plants of Switzerland, Austria, or Czechoslovakia. This would be the result of using the time differences, for example, between the Urals and Portugal. Likewise, the problem of atmospheric pollution cannot be completely



solved within the framework of a single country. For example, approximately 30 percent of the pollution in Poland is carried by western winds, even from the Ruhr Basin and similarly pollution from above England settles in Norway. These are all extremely vital problems which the socialist countries have been presenting to the UN forum in the conviction that intelligence will gradually overcome the political barriers and that suitable agreements will be concluded.

The world energy crisis has very sharply increased the need for efficient use of energy, more and more expensive but indispensable for man. The primary sources of energy are:

- solid fuels (hard coal and brown coal, peat, wood);
- liquid fuels (crude oil);
- gas fuels (natural gas);
- water energy (the energy of river and the sea, but not energy generated in pumped-storage power stations);
- solar energy (this group also usually includes energy from wind caused by heating the earth with solar rays);
- nuclear energy.

The five first sources of energy are actually solar energy, with three of them representing energy accumulated in ancient periods, while the energy of the water cycle also constitutes a certain form of renewable solar energy causing this water cycle in nature.

The first three sources of energy are exhausted as they are consumed. The greatest are the world supplies of coal, sufficient for at least approximately 200 years, even with a further increase in energy consumption.

Energy is consumed by man in the form of upgraded sources of energy, but at the cost of losses in changing the primary sources into more suitable forms. The upgraded sources of energy are primarily:

- electrical energy;
- heat (a distinction is usually made between low-temperature heat up to 300°C and high-temperature heat);
- gas;
- crude oil products (gasoline, diesel and heating oils, and others);
- solid fuels (coke, high-grade coal, briquettes).

The transfer of primary energy sources into upgraded sources always takes place with definite losses. From the point of view of fuel and energy management, these losses should be as small as possible. Here a decisive role is played by the choice of the proper, upgraded source of energy which however depends to a considerable degree on the technology of the process for which this source is necessary.

To better explain the problem it is worth considering three fundamental processes, because they are energy-intensive: the production of steel, transportation, and the heating of buildings.

The production of steel has entailed solid fuels, mainly coke but charcoal in the past. However, modern processes of obtaining high-quality steel are based on the use of gas or crude oil products, or on electrical energy. The transition from the open-hearth process to electric furnaces does not only reduce the total energy-intensity of the process, but considerably enhances the quality of the steel. Higher quality steel is not only more durable, but in addition smaller quantities of it can satisfy national needs. This makes its benefits more understandable. In order to illustrate what great ranges still exist in Poland in this field, from the viewpoint of differences in flowline processes, it is worth adding that approximately 285 Mcal/ton are consumed in Huta Katowice and 2,500 Mcal/ton in Huta Zygmunt to process 1 ton of natural steel.

The consumption of energy for transport needs constitutes approximately 10 percent of all consumption of primary energy sources in Poland, and this is increasing imperceptibly with economic development. It is essential for transport to consume about 30 percent of liquid fuels. Diesel locomotives or electrical traction can be used to transport goods by railroad. Despite appearances, the efficiency of transforming primary energy sources into the mechanical energy consumed in transportation is very similar. In general the efficiency for motor traction consists of approximately 60 percent efficiency in transforming crude oil and approximately 40 percent efficiency in diesel engines, with a result of approximately 24 percent. For electrical traction with the production of electrical energy from coal, the efficiency of the electrical power plant and the transmission of energy by the network amount to a total of approximately 30 percent, and the efficiency of tractive engines amounts to about 80 percent, that is, also approximately 24 percent as a result. The virtue of electrical traction is the possibility of replacing crude oil by coal, and its drawback is the considerable investment cost of the network. More exact economic calculations would permit determination of the profitable area of railroad electrification and the establishment of its most beneficial timetable.

However, not all transport problems can be solved by electrification. This obviously refers to water and air transport, but also road transport to a considerable degree. An unusually significant role is played by loading and unloading costs in transport problems. This is not only

expensive work, but simply requires considerable physical strength and, finally, it must be limited for humanitarian considerations and replaced by well-developed mechanization. Here road transport has an immense advantage over railroad transport, and this is one of the major reasons for the rapid development of this type of transport in Poland. Transport electrification should be introduced in a reasonable area (tramways, streetcars, battery-driven delivery vehicles), and in general logic should be introduced in the use of means of transportation and in design solutions reducing the consumption of liquid fuels in short supply (diesel engines, trucks of greater capacity, containers, modern engines with turbochargers and so forth).

In Poland heating buildings consumes approximately 40 percent of the primary fuels. Still most widely used for heating at the present time are small boiler setups (we have approximately 10,000 small boilers) and individual stoves for heating. It is estimated that approximately 50 percent of the population still uses such types of heating, and that approximately 25 percent are provided with heat from an electricity-heat generating plant. The efficiency found in using fuels with integrated production of electrical energy and heat is on the order of 80 percent, while the efficiency of local boilers for central heating with solid fuel rarely reaches 50 percent. The construction of an electricity-heat generating plant also has the advantage that it reduces environmental pollution, because it then becomes possible to refine consumption, unrealistic for use in small local boilers or individual stoves.

Therefore a program of electrical-heat operating plant construction is one of the fundamental methods of improving fuel use. It is estimated that the supply of heat from electricity-heat generating plants will include approximately 50 percent of the population. However, approximately 50 percent of the population of the country, living in the country and in developments of simple construction, will remain beyond the scope of centralized heat supplies.

Still, it is not only the delivery of heat which will play an essential role, but also its use in heating buildings. As a result of insufficient thermal insulation in buildings, and especially the exterior walls, window openings and doors on balconies, an excessive amount of the heat supplied is lost without being used. It is estimated that 10-30 percent of heat supplied could be saved by improving thermal insulation, better use of solar heating for buildings, proper insulation of walls on the north and walls exposed to the winds, especially in prefabricated buildings. The investment savings for thermal insulation are only apparent savings, because they increase outlays to mine and transport coal and produce heat.

The examples given represent only an illustration of the complex problem of organizing fuel consumption. Very often looking at this problem only from the point of view of one plant or user leads to results which are incompatible with a broader consideration of the problem from its general aspect, the long-term demand for efficient management of energy. Multiyear

activity in the direction of improving the current use of fuel and energy and, from this point of view, further efficient development of the economy must be subject to this prime requisite.

It is expedient to especially emphasize that the well-known motto: "Poland stands on coal" cannot be understood as encouragement to waste this national treasure. Continuation of the fuel economy in an often lavish way would not only lead to an excessive burden on the national income by outlays for this sector of the economy, but would also entail the ecology, primarily as a result of atmospheric pollution.

Therefore a stipulation must be formulated to adopt a strategy for the further development of the economy which will not cause excessive energy-intensive growth. Associated energy aspects from the national point of view should be considered in every major economic decision.

For many years the needs for energy have been increasing at approximately 4 percent per year, while electrical energy has recently been increasing at 6-8 percent per year. The increase in energy needs are the result of the development of construction and industrial expansion, rapid modernization of agriculture, expansion of transportation and the mechanization of construction and agriculture.

The increase in obtaining hard coal is on the order of 3-4 percent annually. The increase in stress on the fuel balance is associated with the fact that the energy needs concern upgraded sources of energy, for which it is not always possible to process coal with satisfactory efficiency and at profitable costs.

Despite the assumption of further development in hard coal mining, it is indispensable to find other solutions which will permit the national needs to be fulfilled.

Such a solution will expediently be the use of atomic energy for the production of electrical energy and heat. However, this is a program which requires time. It is estimated that around the year 2000 almost 30 percent of the electrical energy will be produced in nuclear electrical power plants. The first such power plant is under construction and is to be on-line in 1985.

Until this time, and also at the beginning of the 21st century, the temporary solution will be the use of the national deposits of brown coal extracted from strip mines. This is a gigantic investment program requiring the performance of a great deal of additional geological and prospecting research, but promising to satisfy the needs of the country. The development of new brown coal deposits will temporarily alter the economy of considerable areas as a result of changes in the water economy, and will create a need for a very wide consideration of the environmental aspects of this solution, but at present it is considered the most realistic and economically beneficial.



The electrical power plant being built in Belchatowa will be the largest of this type of installation in Europe. Just like the association of mines and electrical power plants around Konin, it will undoubtedly create a new economic structure in the Piotrkow Trybunalski Voivodship, just as the Lublin Coal Basin is changing the structure of current, mainly agricultural, areas.

The expansion of electrical energy will be based mainly on the use of brown coal and on expansion of electricity-heat generating plants heated by hard coal. But intensive expansion of nuclear energy will also be begun from 1985 on.

Initial preparations have already been made for the location of new electrical power plants up to the year 2000. Consideration has been given to the fuel problem, to cooling the electrical power plant and to protecting the natural environment. It will be necessary to withdraw low efficiency equipment and equipment polluting the natural environment from use, particularly in Silesia, and to replace them by more modern devices.

For the most part a 400 kV network will be expanded to transmit energy, while the first 750 kV line in Poland will be installed in 1983 to expand connections with the MIR [expansion unknown] system.

One of the outstanding tasks will be to increase the reliability of electrical energy supplies. The distribution network must be expanded and various backup systems must meet consumer requirements.

In order to enable the construction of necessary installations and to guarantee service to them, it will be necessary to proceed to larger power units, from the current units of 360 and 500 MW to 700 MW, and to 1000 MW in the future. Further significant expansion in electricity-heat generating plants and in heating systems is anticipated. They should gradually embrace cities with more than 30,000 inhabitants, major industrial plants and the cities near these plants. It is judged that the development of electricity-heat generating will considerably improve the use of fuels and improve environmental protection.

In addition to heat necessary for heating buildings, considerable amounts of heat are necessary for preparing meals. The use of solid fuels for this purpose will disappear as a result of the great labor-intensity of this procedure and of the long period of heating a coal range, but also as a result of its low energy efficiency (on the order of 10 percent). A more modern solution is the use of gas or electrical energy.

Particularly important is the development of bottled gas production, particularly for areas of dispersed development where it would be inadvisable to put in gas from the national network. In view of the shortage of this source of energy, its use in industrial processes must be limited to cases resulting from essential technological needs.

The demand for crude oil and its products will continue to increase. This is primarily a result of the development of transportation, the mechanization of agriculture and construction, and the development of the chemical industry. A further expansion of refineries and the pipeline system for oil and petroleum products is anticipated.

A basic condition for the development of the fuel and energy sector is the production in Poland of considerably larger amounts of energy machinery and equipment for hard and brown coal mining, for refineries and pipeline systems, for electrical power plants and for energy networks. The expansion of this industry is a profitable undertaking and indispensable from the point of view of the needs to standardize equipment for efficient management of such enormous assets.

It is worth emphasizing that, along with the production of equipment generating and converting energy, there must be development in the production of modern, high-efficiency energy collectors. This is a fundamental condition for the efficient use of the energy generated.

Energy machinery and equipment, particularly electrical, can also become an export product. The world market is receptive to this equipment, and its production requires modest amounts of energy per production unit.

Fulfillment of the program of expanding the fuel and energy sector, even in the area of technology known today, requires a great deal of research and testing. The following should be given primary mention:

- Geological and prospecting research, particularly for the needs of brown coal extraction, along with the development of methods to use deposits in accord with local conditions and in accord with the future demands of protection of the natural environment;
- Mastery in Poland over the use of nuclear power plants along with work on designs for many pieces of equipment in conformity with the program of the division of tasks in the international division of labor;
- Development of designs for equipment to generate, transmit and distribute electrical energy and heat on a broad scale unprecedented in our country, along with a need to research and solve problems associated with the use of national fuels;
- Development of an optimal way of heating buildings in urban centers and in scattered buildings meeting Polish climatic conditions, and developing energy-saving electrical energy and heat collectors;
- Development of solutions in the area of protection of the natural environment for all problems in the development of the fuel and energy economy, particularly in large urban centers (Silesia, Warsaw, Lodz, Trojmiasto) and in recreational areas.

From the point of view of the time to finish undertakings to guarantee energy needs, work must also be undertaken on the designs and technologies which will be used after 1990, but which must be prepared earlier. Here we should primarily mention: the need for developing new and more efficient energy transmission not used on an industrial scale at present, research on the possibilities and preparations for wider use in Poland of solar energy and methane gas, and preparations to use new energy sources, such as methanol and hydrogen, in Poland.

An analysis of the energy problems of Poland has revealed the need for continuous use of synthetic analyses and prognoses for the further development of the fuel and energy economy. This does not only require improvement in methods of marketing energy, but also critical research on the costs of extraction, processing and using energy with due attention to constant efficient development.

It is anticipated that these problems will become part of the "Energy" research and development program being elaborated now.

The economic development of the country will require a greater increase in energy production, but it must be conducted in such a way that a considerable part of the energy intensity of the national income be reduced. The greatest effects can be provided by strategic solutions based on the development of those branches of industry which produce a high-quality product but which are not very energy-intensive. This means it will be necessary to prefer development of processing industries (the food industry, the light industry, chemical processing, the electromachine industry and electronics). However, this type of activity requires time in order to be felt in the total balance of the country. Another extremely important task is to simultaneously modernize in order to reduce the energy-intensity of current production plus activity aimed at a general improvement in management in the sphere of fuels and energy.

The requirement of reducing the energy-intensity of the economy is a primary national stipulation. On the one hand it results from an analysis of the possibilities of using the energy resources of the country, and on the other from the general energy situation of the world, which primarily affects the economy of Poland through foreign trade.

However, this problem is not always felt to the proper extent at the enterprise level, because enterprise primary costs generally constitute scarcely 2-10 percent of the costs of fuel and energy. But in the final analysis they constitute approximately 30 percent of the costs of the entire national economy. Similar outlays for the fuel and energy sector in all developed countries are on the order of 30 percent of industrial outlays. This is a typical example of a problem of a national nature.

Changes in fuel prices on world markets are changing at present in a way which is unfavorable for us, because the prices of crude oil, gas and petroleum products are rising faster than the price of coal. Therefore goods imported by Poland are becoming more expensive more rapidly than the coal exported by our country. This stresses even more the importance of the requirement for more thrifty management of our petroleum products. Their use is basically anticipated for chemical processing, transportation and the mechanization of agriculture and construction. In addition obvious products remaining after refining, such as asphalt will be used for road construction. The requirement of thrifty use of petroleum products in transportation and in the mechanization of agriculture and construction must be fully implemented here.

Under the conditions of our country, the most effective directions of supplying the country with energy are:

- Further extraction of hard and brown coal, gas and crude oil, as greatly as possible, while preserving the principles of effective management of geological resources and adequate development of geological and prospecting work;
- Systematic development and improvement in the system of generating electrical energy and heat, with special attention to atomic energy, the transmission system and the distribution of electrical energy and heat;
- Systematic improvement and development in the systems of processing and distributing solid, liquid and gas fuels; and
- Development of research and application necessary for implementing these tasks.

In addition to supplies of fuel and energy, a basic condition is the development of the national production of geological, mining and energy machinery and equipment. Parallel to this the rapid development of energy-saving energy and heat collectors is necessary. Full exploitation of the possibilities of the CEMA countries is anticipated, within the framework of progressive integration of the socialist camp and the development of international exchange.

All society, and particularly political and economic leaders, must become aware of the societywide aspects of the energy problems. An improvement in prosperity, forming the goal of social and economic development, requires human consumption of greater and greater quantities of energy. On the other hand, the consumption of greater and greater quantities of energy leads to obvious ecological effects and economic stresses. The requirement of effective use of energy thus becomes an obligation of civilized man, and first of all of an aware humanitarian.



IMPROVED PRODUCTION ADAPTATION, DIFFERENTIATION WITHIN CEMA URGED

East Berlin WIRTSCHAFTSWISSENSCHAFT in German Vol 27 No 10, Oct 79 pp 1169-1180

[Article by Dr Hans Joachim Peters, economist, Institute for Socialist World System Economics, Academy of Social Sciences, SED Central Committee: "On Perfecting the Production Structures of CEMA Countries in the Process of Socialist Economic Integration"]

[Text] The steady perfection of production structures in the CEMA countries reflects the planned progress of the social division of labor. More than 60 years have passed since Lenin's programmatic pamphlet "The Coming Tasks of the Soviet Power," in creative application and further development of Marx' and Engels' appreciations of socialist construction, assigned to the victorious proletariat and its leading party the task of "producing an extremely complex and dense network of new organizational relations which involve the planned production and distribution of goods needed for the lives of many millions of people...everywhere carrying out strict accounting and providing checks on the manufacture and distribution of the products, raising productivity, genuinely socializing production."<sup>1</sup> The social practice of socialist construction in the USSR and other socialist countries still continues to bear witness to the correctness of this assignment. Lenin's challenge is topical now as it was at the onset of the socialist revolution; the change is in the social conditions of its implementation. Currently these increasingly include the development of socialist economic integration which corresponds "to the joint responsibility of the CEMA member countries for the development of socialism."<sup>2</sup>

In the SED Central Committee report to the Ninth SED Congress Erich Honecker stressed: "We are firmly convinced that in future the consolidation and deepening of socialist economic integration will increasingly be the crucial basic prerequisite for the stable and planned development in our country as well as all other socialist countries."<sup>3</sup> The purposeful deepening of socialist economic integration represents an indispensable condition for the further expansion of the material-technological basis adequate to developed socialism, for the high standard of economic efficiency required as the basis

of the continuing successful implementation of the main task in the CEMA and the other CEMA countries. We have had many practical demonstrations that the work on the planned realization of the "Complex Program for the Further Deepening and Perfection of Cooperation and the Development of the Socialist Economic Integration of the CEMA Member Countries" has meant "that our economic cooperation has already substantially deepened, and that the mutual complementation of the economies of our countries has increased to the considerable benefit of every one of them."<sup>4</sup>

Early this year the Council for Economic Mutual Aid celebrated its 30th anniversary. At the 33rd Council Meeting in Moscow in honor of this occasion Aleksei Kosygin emphasized: "In these 30 years we have gathered important experiences in the joint resolution of various economic and scientific-technological problems on the basis of cooperative planning. It is on this basis that we have created oil and gas pipelines and combined energy systems. We are constructing huge industrial plants, have organized the production of electronic computers and the standardized ESER [uniform electronic data processing system], and are carrying out programs of international space research."

These positive experiences in our cooperation lead us to confidently expect that, based on our achievements, we will be able successfully to cope with new and even more complex assignments."<sup>5</sup>

#### On the Link Between the Perfection of Production Structures and Measures of Socialist Economic Integration

The further perfection of the material-technological basis, managed increasingly and mainly by the intensification of social production, is more and more a fundamental task of the CEMA member countries. Of growing importance here for the steady improvement in the satisfaction of the growing needs of the working people are the reciprocal relations between the measures to organize the material-technological basis, develop most efficient economic structures and deepen the international socialist division of labor in the course of socialist economic integration. Though this will take a long time, we are already in a position to note that, in the conditions of the intensification of social production, the efficacy of our efforts for the further development of optimum economic structures in the majority of CEMA member countries increasingly depends on the planned exploitation of the possibilities and potential inherent in socialist economic integration. The utilization of its efficiency-raising effects on the intensification of social production, its comprehensive use for speeding up scientific-technological progress and the perfection of the material-technological basis of socialism still represent major reserves for the improvement of the efficiency of social production as the prerequisite for the further successful implementation of the main task in its unity of economic and social policy in the CEMA member countries.

The conscious organization of efficient economic structures in these countries, their increasingly more effective arrangement--including the perfection of production structures--therefore necessarily presumes the increasingly efficient establishment of close links between structural development and economic integration.

First: The starting conditions and the basis of the development of efficient structures in the CEMA member countries economies are provided by the social, political and historic economic and material-technological situation of these countries. The depth, the extent and the level of socialization in the economies of the CEMA member countries is the basis, the prerequisite and, at the same time, one of the causes of the further evolution of the socialist socialization of production and labor in the process of socialist economic integration. Favorable conditions for the long-range, stable and generally beneficial international socialist division of labor therefore exist in those industries especially, where a great deal of maturity in the social division of labor was achieved within the framework of the economies of the CEMA member countries (such as shipbuilding, rail vehicle and farm machine construction, machine tool construction). The authors of the Complex Program emphasized that, on the basis of the maximum mobilization and efficient utilization of their own efforts and resources as well as the use of the benefits of international socialist cooperation, "the elaboration of the future main trends of the organization of an optimum economic complex for each CEMA member country (is) an extremely important problem."<sup>6</sup>

We have learned from experience that, when using the possibilities and conditions offered by socialist economic integration, we must further enhance our own efforts to perfect the optimum production profile--most beneficial to the respective local conditions. The greatest advances in the coordination of production structures among the CEMA member countries were achieved whenever these countries had precise ideas about the future development of their production structures and, by using international socialist division of labor, created the proper conditions for achieving this development. Consequently the preparation and perfection of forward looking structural concepts in the CEMA countries is crucial for the further deepening of socialist economic integration and the improvement of its efficacy. At the same time this is an important prerequisite for continuing purposefully to perfect the material-technological basis of socialism in the CEMA member countries in the conditions of socialist economic integration. It is imperative from this aspect to continue purposefully to further develop production structures in the economies of these countries, which are "capable of being integrated" and "encourage integration." Building on the native performance standard and the development of the socialist community as a whole, such production structures will guarantee the greatest possible economic efficiency and stimulate the process of economic integration.

Starting from the level of social construction achieved in the CEMA member countries as well as the maturity of their scientific-technological and economic cooperation, the production structures are improved with steadily

greater efficiency corresponding to developing internal and external social relations. The sole criterion here must be the greatest possible economic efficiency. The scientific-technological standard of production structures in the CEMA member countries is more and more the key to the further planned coordination of production structures between them on the basis of the international socialist division of labor. All of this helps the CEMA member countries increase the end product represented by the consumer goods, equipment for the economy and export goods available to society and consequently helps better satisfy the steadily growing needs of the working people.

The appreciation that the starting conditions for the evolution of modern and highly efficient structures in the socialist community are based on the economic structures of the CEMA member countries, and that the jointly decided measures are carried out by these countries with an internationalist sense of responsibility<sup>7</sup> underlines our practical experiences which disclose that the relatively stable production structures in the CEMA member countries require the planned utilization of the efficiency-raising effects of international socialist specialization and cooperation for the further long-range perfection and the increasingly effective adjustment to the demands of scientific-technological progress.

Second: The further organization of more efficient production structures in the CEMA member countries is actively affected by the planned deepening and qualitative perfection of the division of labor in the process of socialist economic integration. The extent of international socialist specialization and cooperation of production, their future requirements and potential therefore offer important initial values for the planned perfection of such production structures in these countries as will guarantee a high standard of economic efficiency. From this arise effective possibilities for the even more efficient organization of the further perfection of the production profile in the CEMA member countries, thereby counteracting extensive trends and producing the end product available to society in the appropriate structure and at the lowest cost.

Every year the development of socialist economic integration becomes an increasingly important factor in the growth of productive forces, the expansion and perfection of the material basis of the new society.<sup>8</sup> By way of the many different methods of international socialist division of labor, especially the steadily closer cooperation among the CEMA member countries in science, technology and production, it contributes to the qualitative perfection and more efficient use of the material-technological basis, to the speed-up in scientific-technological progress, to the achievement and determination of top performances in research, development and production measured by world criteria, as well as to structural changes in the economies of the CEMA member countries beneficial to all those involved.<sup>9</sup>

Planned and coordinated goods supplies, especially those resulting from long-range specialization and cooperation among the CEMA member countries,



open up possibilities for the expansion and concentrated development of the material-technological bases of these countries as well as for their smooth-flowing renewal at an advanced scientific-technological standard. We see that the greatest profit is achieved if, beginning with research cooperation, it is possible to settle the use of results as well as the division of labor involved in the output of the products to be developed.<sup>10</sup> That in turn is linked with structural changes, especially the coordinated perfection of production structures.

In this connection Shiriyaev indicates the steadily growing importance of reciprocal goods deliveries by the CEMA member countries.<sup>11</sup> As the result of production specialization and cooperation within socialist economic integration the share of reciprocal trade in the foreign trade total of the CEMA member countries rose from 52.7 percent in 1974 to 57.6 percent in 1977. In the majority of the European CEMA member countries since 1961 the annual average rate of growth in the reciprocal exchange of goods has substantially exceeded gross industrial production (see table 1).

The declaration issued on the 30th anniversary of the Council for Economic Mutual Aid stated: "Evidence of the steady deepening of the international socialist division of labor is the fact that the 1978 volume of reciprocal trade among the CEMA member countries exceeded the 1950 volume 20 times, and its rate of growth far outdistanced the national income and industrial output."<sup>12</sup> All this is an eloquent testimonial demonstrating how the reciprocal complementation and beginning interlocking of economic processes, industries and producers of the socialist economies united in CEMA as a whole progresses according to plan, on the basis of the international socialist division of labor and cooperation in the process of socialist economic integration. At the 23rd Council Meeting Willy Stoph underlined this by saying: "We advocate the purposeful extension of specialization and cooperation among our countries; these require a high standard of scientific-technological achievement and contract loyalty."<sup>13</sup>

The CEMA member countries derive much benefit from, for example, the specialization and cooperation of production in the construction of rail vehicles and ships, the manufacture of highly efficient equipment for the electrical engineering and electronic industries, computer controlled machine tools, electronic computer devices and others. In the long term this will lead to the steadily more effective and planned coordination of the development and interchangeability of the material-technological bases of these countries, and this in turn assumes much vigor and stability in the production structures of the CEMA member countries.

Safeguards for the stable and long-term supply of raw materials and fuels are crucial to the GDR and other CEMA member countries in the matter of continuing intensive economic growth. For that reason the GDR is involved in projects for the long-term assurance of supplies of oil, natural gas, iron ore, rolled steel, ferrous alloys, wood pulp and asbestos from the USSR, and of aluminum and nonferrous metals from Yugoslavia and Cuba.<sup>14</sup>

All this clearly shows that the further deepening of socialist economic integration is increasingly a factor affecting the further organization of efficient production structures in the GDR as in other CEMA member countries. It is obvious that such a development cannot occur spontaneously nor represent an end in itself.

Third: Our practical experiences show that the deepening of socialist economic integration begins to develop into a structure-shaping factor for the further perfection of efficient production structures in the CEMA countries to the extent that success is achieved in the long-term improvement of efficiency for all those involved. "The further socialist economic integration advances, the more it affects our economic development, the greater attention is obviously required to be given all economic issues linked thereto, for the efficiency of cooperation."<sup>15</sup> Here we still have large reserves for further raising the standard of efficiency of social labor as the basis of social progress by way of the utilization of socialist economic integration as a structure-shaping and perfecting factor.

Table 1--Average Annual Rate of Growth of Gross Industrial Production and Reciprocal Trade Among the CEMA Countries from 1961-1977 (percentage)

	Gross Industrial Production			Reciprocal Exchange of Goods		
	1961-1965	1966-1970	1971-1977	1961-1965	1966-1971	1971-1977
Bulgaria	11.7	10.9	8.3	12.1	10.7	16.5
Hungary	7.5	6.2	6.2	11.2	8.7	16.2
GDR	5.8	6.5	6.2 <sup>a)</sup>	6.5	9.3	12.9
Cuba	-	-	7.7 <sup>a)</sup>	-	9.6	17.2
Mongolia	9.8	9.9	8.1	3.5	2.6	15.7
Poland	8.4	8.3	9.9	11.6	10.3	14.8
Romania	13.8	11.9	12.6	7.7	7.3	13.5
USSR	8.6	8.5	6.8	9.2	7.8	13.9
CSSR	5.2	6.7	6.4	8.8	5.7	13.1

a) 1971-1976

#### Features of the Adjustment and Differentiation of Production Structures in the CEMA Countries in the Process of Integration

The further perfection of production structures in the CEMA member countries in the process of integration is a long-range, complex and dynamic process of adaptation and simultaneous differentiation, the concentrated reflection of the many reciprocal effects between the measures for the further organization and perfection of optimum economic structures and the development of socialist economic integration. The adaptation and differentiation linked with the planned use of socialist economic integration in the production structures of the CEMA member countries result in further improvements in the efficiency of the economic structures in these countries and effectively

and the further evolution of optimum production criteria as well as the creation and rational operation of large and efficient economic units such as combines.

To be noted in the process of socialist economic integration is the increasing adjustment of basic economic structures among the CEMA member countries, and this applies to macrostructures as well as to microstructures. For example: All European CEMA member countries are rapidly developing the manufacture of the products of processing machine construction, especially machine tools, of chemicals and chemical plant construction, and electrical engineering/electronics (including microelectronics). On the other hand not every country produces the same or the entire range of products. Greater international division of labor, especially product specialization and cooperation, has resulted in differences in the CEMA countries production structures.<sup>16</sup>

This process does not always proceed smoothly; indeed at times it even displays opposing trends. One example is offered by continued parallel production (especially in machine construction), which is not economically warranted. At the same time poor product quality, the inability to deliver or delivery delays, spare part and servicing problems or even the prevailing status of the balance of payments of CEMA member countries affect the further adaptation and differentiation of their product structures; in fact they may temporarily slow them down or even obstruct them altogether. The increasingly successful handling of these problems by joint efforts, though, demonstrates that we do have a crucial and decisive trend toward the adaptation and simultaneous differentiation of production structures. It is the prerequisite as well as the result of the planned interlocking of the CEMA countries economies in the conditions of the intensification of social production in the process of socialist economic integration. By the planned adaptation and differentiation of their production structures the CEMA member countries effectively contribute to the combination--in the long term--of their scientific and economic potentials at the greatest possible efficiency.

By now the adaptation and differentiation of production structures is occurring increasingly on the basis of the technical-technological reequipment and further perfection of production structures corresponding to the most advanced scientific-technological standards. The more the performance level of the CEMA member countries corresponds to the highest scientific-technological standard, the more comprehensive scientific-technological progress is realized in these countries, the better are the conditions for the adaptation and differentiation of their production structures, the more effectively will it be possible to use the further deepening of socialist economic integration to serve social progress in these countries.

This adaptation and simultaneous differentiation of production are proceeding dynamically and steadily reoccur in the course of the further deepening of socialist economic integration at an ever higher level. I cannot, without any reservations, agree with the concept<sup>17</sup> which, from a historical aspect, classifies the adaptation of industrial structures as a "first stage" and

the differentiation of inner-industrial production structures as a "second stage."<sup>17</sup> While appreciating the historic differences in development, this concept juxtaposes two facets of one and the same process--that is the advance of the socialization of production and labor in the industrial process. Though, timewise and depending on historic conditions, it is possible for differences to occur in the intensity of adaptation and differentiation tendencies in the development and perfection of the production structures in the CEMA member countries,<sup>18</sup> the planned relation and utilization of both tendencies represent a key issue in increasing the efficiency of international socialist division of labor and cooperation. The successful development of the international socialist division of labor and cooperation available lies that the basic adjustment of production structures has always implied the concentration of the production of similar products in certain countries and therefore also with differentiation tendencies in their production structures (and this is increasingly the case now). In 1954, for example, at the Fifth Meeting of the Council for Economic Mutual Aid, it was decided more emphatically to develop the specialization of CEMA member countries with regard to the production of important machines and plants.<sup>19</sup>

Currently the planned utilization of the adaptation and simultaneous differentiation of the production structures in the CEMA member countries still offers substantial reserves for the great rise in output required by these economies. This encourages the evolution of stable and simultaneously dynamic structures corresponding to the intensification of social production, speeds up scientific-technical progress, permits the avoidance or diminution of parallel developments and productions, and lastly conserves social labor and allows its use for increasing the satisfaction of demand corresponding to the respective resources and conditions. More and more clearly the planned link of adaptation and differentiation in the production structures of the CEMA member countries is turning out to be an important approach to the continuing purposeful improvement of the efficiency of socialist economic integration in the conditions of the intensification of social production. This process is characterized by the following features:

1. The adjustment of the CEMA member countries production structures has advanced relatively far. This is largely due to the steadily developing and improving scientific-technological and economic cooperation among the countries united in the Council for Economic Mutual Aid, especially by the USSR's economic and scientific-technological aid in the development and perfection of the material-technological basis of socialism in the countries of the socialist community. Adaptation trends in production structures are noticeable in many fields.

To begin with we see an adaptation by economic sectors in the structure of the produced national income.

Industry's share in the produced national income rose decisively in the CEMA member countries as the result of socialist industrialization, the development of the material-technological basis of socialism. By now industry



produces about 50-60 percent of the European CEMA countries national incomes; in 1977 the share of the construction industry in the GDR was 7.5 percent, in the Hungarian People's Republic 11.9 percent; the share of transportation and communication ranged from 3.3 percent in the CSSR to 8.7 percent in the People's Republic of Bulgaria.<sup>20</sup> The development of the investment structure in the economies of the CEMA member countries underlines this trend and, at the same time, demonstrates the crucial role of machine construction and the metal processing industry. In all European CEMA member countries these sectors now account for 20-25 percent of all industrial investments (see table 2).

Secondly we note an adjustment of the share of industries turning out means of production in total gross industrial production.

In most of the European CEMA member countries, as a consequence of the planned utilization of the law of priority growth for the manufacturing of means of production compared to the production of consumer goods, the share in total gross industrial production of the industries manufacturing means of production has risen and adapted to an average ranging from 61-74 percent (depending on the country). Decreased in the various CEMA member countries at the same time has the difference in the rate of growth of industries manufacturing means of production and consumer goods.<sup>21</sup>

Thirdly we note a reduction in the differences regarding the shares of sectors and main industries in industrial production.

All CEMA member countries attribute vital importance to the development of such industries as are exponents of scientific-technological progress, and which are favored by natural and historical conditions in these countries. Analyses have shown that, in the long term, the development and perfection of production structures in the European CEMA member countries proceeds in the direction of the priority of the metal processing industry, machine construction (especially processing machine construction), electrical engineering/electronics, chemicals and chemical plant construction and energy production--provided the benefits of the international socialist division of labor and cooperation are properly used. Since the early 1950's average annual growth rates of the machine construction and metal processing industry, the chemical and rubber-asbestos industries in all European CEMA member countries tend to substantially exceed the corresponding growth rates of gross industrial production as a whole. In fact in the majority of these countries this trend has been further strengthened in the 1970's by comparison to the 1960's. The share of electrical machine construction in total machine construction has also risen steadily (see table 3).<sup>22</sup>

Table 2--Development of the Share of Industrial Investments in Total Investments and the Share of Investments in Machine Construction and the Metal Processing Industry in the Industrial Investments of the Various CEMA Countries from 1960-1970 (percentages)

	Share of Industrial Investments in Total Investments			Share of Investments in Machine Construction and Metal Processing in Industrial Investments		
	1960	1970	1977	1960	1970	1977
Bulgaria	34.1	45.2	41.7	10.3	19.8	22.3
Hungary	40.0	32.5	36.5	26.8	18.7	20.1
GDR	49.2	51.4	50.9	13.7	26.0	20.8
Mongolia	29.2 <sup>a)</sup>	30.8	47.3	0.4 <sup>a)</sup>	4.2	6.2
Poland	37.6	39.0	41.6	14.2	20.5	18.2
Romania	42.3	47.2	47.6	9.0	19.9	24.1
USSR	35.9	35.4	35.6	14.3	21.4	24.3
CSSR	40.2	38.5	37.4	6.5	18.1	20.9

a) Including the construction industry.

Source: Calculated from "1978 Statistical Yearbook of the CEMA Countries," pp 135, 139 and 145.

Table 3--Relative Growth Ratio of Gross Industrial Production of the Machine Construction and Metal Processing Industry as well as the Chemical and Rubber-Asbestos Industry Compared to Gross Industrial Production in the CEMA Countries from 1951-1977

	Machine Construction and Metal Processing Industry				Chemical and Rubber-Asbestos Industry			
	1951-1960	1961-1965	1966-1970	1971-1977	1951-1960	1961-1965	1966-1970	1971-1977
Bulgaria	1.89	1.33	1.23	1.45	2.04	1.26	1.58	1.17
Hungary	1.29	1.10	1.10	1.09	1.89	1.52	1.32	1.32
GDR	1.18 <sup>a)</sup>	1.11	1.09	1.03	1.00	1.09	1.02	1.10
Mongolia	1.74	0.76	1.88	1.25	-	0.86	0.89	1.71
Poland	2.20	1.30	1.20	1.28	1.44	1.24	1.24	1.07
Romania	1.92	1.15	1.19	1.29	1.88	1.58	1.47	1.20
USSR	1.39	1.19	1.16	1.29	1.17	1.24	1.16	1.18
CSSR	1.67	1.06	1.12	1.14	1.55	1.29	1.15	1.21

a) 1956-1960

Source: Calculated from "1971 Statistical Yearbook of the CEMA Member Countries," pp 54 and 61 ff; also 1972 Yearbook, pp 58 ff and 1978 Yearbook, pp 57 ff.

The priority development of certain industries or types of production in the CEMA member countries due to the intensification of social production and, especially, the speed-up in scientific-technological advances, tends to result in the increasing similarity of the basic industrial structures of the CEMA member countries. This is in the interest of these countries as well as in the interest of the socialist community as a whole. It represents an approach designed to enable us to satisfy the steadily rising demand for, especially, products of scientific-technological progress in the CEMA member countries and reduce imports from the non-socialist monetary area. At the same time, though, this development may be linked with a temporary rise in parallel production in the CEMA member countries. Substantial reserves are therefore available for the improvement of the efficiency of social labor in the planned reduction of such production, oriented to the satisfaction of needs.

2. A country's more insistent concentration on its traditional production, the increasing general adaptation of the CEMA member countries production structures certainly does not mean that every country will develop the entire production profile of an industry, let us say machine construction. The planned utilization of the benefits of the international socialist division of labor and cooperation in the process of socialist economic integration means that--incorporated in the adaptation of production structures earlier described--planned differences emerge in these same production structures.<sup>23</sup>

Effective beginnings of differentiated production structures may be found, for example, in shipbuilding (see table 4), farm machine and rail vehicle<sup>24</sup> construction, machine tool manufacture and scientific device construction.

Table 4--Concentration of the CEMA Countries Production in Shipbuilding

	General Cargo Ships	Refrige- rated Ships	Con- tainer Ships	Bulk Mate- rial Ships	Fish- ing Vessels	Factory Ships	Take-over Refriger- ated Trans- port Ships
Bulgaria	-	-	x	x	-	-	-
Hungary	-	-	-	-	x	-	-
DDR	x	-	x	x	x	-	x
Poland	x	x	x	x	x	x	x
Romania	x	-	x	x	x	-	-
USSR	x	-	x	x	x	x	x
CSSR	-	-	-	-	-	-	-

x These types of ships are turned out by the respective country. At the same time the size categories within these groups are further differentiated among the various CEMA countries.

Source: Compiled on the basis of press reports from the various CEMA member countries

With regard to all newly developed manufactures such as the production of microelectronics, it is imperative by scientific-technological and economic cooperation to achieve a high standard, corresponding to the best in science and technology, to help set world standards and further advance the concentration of production on the basis of effective international specialization and cooperation. Particularly important here is the specialization and cooperation of the CEMA member countries in machine construction (see table 5) and the metal processing industry.

Table 5--Development of the Shares of the Various CEMA Countries in the Production of Selected Types of Metal Cutting Machine Tools in These Countries: Total from 1960-1977 (percentages)

	Automatic and Semi-automatic Turning Machines			Polishing Machines			Milling Cutters		
	1960	1970	1977	1960	1970	1977	1960	1970	1977
Bulgaria	-	0.7	5.5	0.8	0.4	0.6	0.1	3.0	3.1
Hungary	0.1	0.5	0.8	10.5	6.0	14.7	4.7	3.1	0.7
GDR	7.9	4.3	4.6	21.0	17.7	13.1	10.7	7.0	10.3
Poland	4.2	5.2	10.9	12.5	13.8	6.1	6.1	7.3	5.1
Romania	-	-	2.7 <sup>a)</sup>	0.3	1.3	2.5 <sup>a)</sup>	0.9	3.6	7.8 <sup>a)</sup>
USSR	64.3	69.8	61.4	32.4	46.7	52.8	64.4	66.8	72.1
CSSR	23.5	19.5	16.8	22.5	14.1	12.7	31.1	9.2	8.7

a) 1975

Source: Calculated from "1978 Statistical Yearbook of the CEMA Member Countries, p 81.

Key points in the further planned differentiation of production structures in machine construction are machine tool construction, the production of metallurgical and energetic plant, farm and construction machine construction as well as the manufacture of plant for the consumer goods industry. In the GDR as well as in other CEMA member countries it is most important to raise the efficiency of these basic structures on the foundation of international socialist specialization and cooperation. This must not result, though, in balance deficiencies or gaps in supplies. Consequently we are confronted here with exceptional challenges to the perfection of the management, planning and economic stimulation of the processes involved in socialist economic integration.

Secondly they are reflected in the divergence of the structure by function value of the industrial products turned out in the respective country for the structure required for expanded reproduction in that country.

As the result of the planned deepening of the international socialist division of labor and cooperation in science, technology and production as the



consequence of the increasing concentration of the production of certain main products in one or several CEMA countries we are observing an increasing differentiation between the structure in terms of function value of the products manufactured in the CEMA member countries and the production structure required in these countries for expanded reproduction. This development is the result and the reflection of the differentiation processes in the production structures. In the course of socialist economic integration, therefore, new conditions and potentials may arise to arrange the proportions between groups A and B of industrial production. By way of the international socialist division of labor and cooperation the efficiency of the industries and sectors turning out means of production is increasingly improved, but this should certainly not be equated with the renunciation of the development of heavy industry in various CEMA member countries. A relation between the development of groups A and B corresponding to the priority growth in all CEMA countries of the manufacture of means of production is the prerequisite for the further perfection of production structures in the process of socialist economic integration.

Thirdly they are reflected in the more rapid development of reciprocal foreign trade among the CEMA member countries as compared to the development of production, especially with regard to the products of machine construction and the metal processing industry.

As a result of international socialist specialization and cooperation the national income realized by way of foreign trade is on the long-term increase in all CEMA member countries. Analyses have demonstrated that the export of machine construction products and plant has sometimes risen substantially faster in reciprocal trade than the development of the manufacture of these products (see table 6).

Linked with this development is an increase in the export and import ratios of output in the industries of the CEMA member countries as a reflection of the further differentiation in the production structure as well as the perfection of the foreign trade structures in these countries for the benefit of machine construction and the metal processing industry.<sup>25</sup>

The long-term adaptation and simultaneous differentiation of production structures in the CEMA member countries on the basis of efficient specialization and cooperation between these countries helps effectively and with a relatively more restricted production profile to satisfy the increasingly broad spectrum of needs of the working people and the demands of the economy. Insofar the issue of the further perfection of the CEMA member countries production structures in the process of socialist economic integration is not an end in itself. Instead its achievement provides an effective contribution to the improvement in the efficiency of social labor and thereby to the steadily better satisfaction of needs.

Table 6--Index of the Development of Production and Reciprocal Deliveries in Machine Construction and the Metal Processing Industry of the CEMA Member Countries in 1974 (1970 = 100)

	CEMA Coun- tries Total	Bul- garia	Hun- gary	GDR	Pol- and	Roma- nia	USSR	CSSR
Growth of machine construction and the metal processing industry	154	175	135	132	169	195	155	138
Exports of machines and plant in reciprocal trade	167	115	170	151	177	205	177	141
Share of machines and plant in reciprocal exports								
1970: (percentages)	38	34	45	60	52	29	23	59
1974:	43	48	45	62	54	38	28	59

Source: "The Economic Cooperation of the CEMA Countries," issued by the CEMA Secretariat, No 6/1975, p 85 (in Russian).

#### Demanding Challenges of Socialist Economic Integration With Regard to Structure-Shaping Measures

By the management, planning and economic stimulation of their economies the CEMA member countries are increasingly successful in using the complex reciprocal relations between structural development and economic integration for the improvement of the efficiency of social labor. Here also it is imperative to keep in mind the nature and long range of this development. In conclusion I would like to indicate some demands arising on the further perfection of structure-shaping measures from the planned organization of the adaptation and differentiation of production structures.

First of all we need the further planned adaptation and differentiation of production structures in the CEMA member countries on the basis of efficient international socialist specialization and cooperation, including the rational siting of production and the establishment of optimum plant and site dimensions.

A key to the highest possible standard of economic efficiency is the scientific-technological cooperation of the CEMA member countries, which increasingly affects the linkage of these countries production structures and decisively helps the intensification of scientific-technological work. This is largely based on the gradual implementation of the long-range target programs prepared jointly by the CEMA member countries in particular in regard to fuel, raw material and energy supplies as well as the coordinated development of machine construction, the consumer goods industry and other important sectors of the economy.

The 23rd Meeting of the Council for Economic Mutual Aid issued the challenge "to speed up the preparation of further agreements on the implementation of the target programs in connection with 1981-1985 plan coordination. Cooperation is to be strengthened in order more quickly to permit the transfer to production of the achievements of scientific-technological progress, especially new technologies. That applies primarily to machine construction and cooperation in the production of machines and plant."<sup>26</sup>

At the same time we are already noting that, due to the program of specialization and cooperation between the GDR and the USSR for the period 1980-1990, the further adaptation and differentiation of production structures in these countries has been raised to a qualitatively higher level.

Second: The efficiency of the division of labor among the CEMA member countries must be improved, especially with regard to research, development and the manufacture of products corresponding to the highest scientific-technological standards. Here the development of all sources for the further speed-up of scientific-technological progress has become an even more important key issue in the economic cooperation of the socialist countries.<sup>27</sup> In future the tried and tested cooperation among the CEMA member countries in the field of planning will be directed even more emphatically to such key points as will guarantee the further perfection of the material-technological basis and the speed-up of scientific-technological progress in these countries by the common efforts of all. This is exemplified by the preparations for the coordination of the five-year plans of the CEMA member countries for the period 1981-1985. The permanence and stability of the long-term export lines developing from all these measures will encourage the intensification of social production in the CEMA member countries and restrict excessive growth trends in the economy.

Third: It will be necessary to realize even more intensively the measures for the perfection of production structures required in the course of the

further deepening of socialist economic integration, and to combine them with further concentration in the structures. In former years structural changes were linked primarily to the expansion and extension of material and manpower resources. As we all know this is possible only to a limited extent, and it is therefore vital now to achieve these changes mainly by the further purposeful intensification of social production. This provides very great challenges to the organic linking of the planning of socialist economic integration with economic planning and balancing generally.

Fourth: The export strength of the CEMA member countries must be steadily improved as the result of the planned adaptation and differentiation of their production structures. If this is done, an effective contribution will be made to the further growth of these countries national incomes. As Erich Honecker emphasized in his concluding address to the Ninth SED Central Committee Plenum, "the growth of our national income is steadily more affected by the way we manage to cope with foreign trade assignments. We simply must take note of conditions on the world market. There is no other way."<sup>28</sup>

The accomplishment of these and other tasks involved in the perfection of the production structures of the CEMA member countries in the course of the socialist economic integration will help improve the efficacy of the long-range structure-shaping measures in the CEMA countries for the deepening of intensification and the speed-up of scientific-technological progress, increasingly make the material processes of socialist economic integration a structure-shaping factor and therefore more and more develop the economic potential of these countries as a whole in well-balanced proportions. This will encourage the adaptation of the CEMA member countries as well as the adjustment of their economic development standards, thus providing favorable prerequisites in these countries for the further successful implementation of the main task. From long-term aspects we thus see evolving a standardized economic organism in these countries, which will have great economic efficiency, provide compatible economic structures and satisfy the criterion of the "united whole" of which Lenin spoke in connection with the increasing socialization of production and labor.<sup>29</sup>

#### FOOTNOTES

1. V.I. Lenin, "The Next Tasks of the Soviet Power," Collected Works, Dietz Verlag, Berlin 1955-1965, Vol 27 (1974), p 231.
2. Ninth Party Congress, "Programm der Sozialistischen Einheitspartei Deutschlands" [SED Program], Dietz Verlag, Berlin 1976, p 32.
3. "Bericht des Zentralkomitees der Sozialistischen Einheitspartei Deutschlands an den IX. Parteitag der SED, Berichterstatter: E. Honecker" [SED Central Committee Report to the Ninth SED Congress], Dietz Verlag, Berlin 1976, p 76.



4. 25th CPSU Congress, "CPSU Central Committee Report and the Next Tasks of the Party in Domestic and Foreign Affairs," Reporter: L.I. Brezhnev, Dietz Verlag, Berlin 1976, p 13.
5. A.A. Kosygin, "Helped by Previous Achievements We Deal With Future Tasks," NEUES DEUTSCHLAND, 28 June 1979, p 6.
6. "Complex Program for the Further Deepening and Perfection of the Cooperation and Development of the Socialist Economic Integration of the CEMA Member Countries," in "Dokumente RG," [CEMA Documents], Staatsverlag der DDR, Berlin 1971, p 21.
7. See collective of authors, "Sozialistische Oekonomische Integration--Grundlagen und Aufgaben" [Socialist Economic Integration--Bases and Tasks], Dietz Verlag, Berlin 1977, p 99.
8. See collective of authors headed by I.P. Oleynik and V.P. Sergeev, "Economic Integration and Material-Technological Basis of the CEMA Member Countries," Mysl Publishing House, Moscow 1977, p 38 (in Russian).
9. This goal is served by, for example, more than 50 CEMA coordination centers for efficient research in important branches, the scientific-technological cooperation of about 2,200 institutes, the planned coordination of this research which, in the period 1976-1980, included some 500 topics, the reciprocal exchange of specialists, documents, data, and so on and so forth.
10. Such top achievements jointly developed with the USSR as Polymer 50, the multispectral camera, 30-ton plasma smelting furnaces and others have come to serve as examples of ensuing benefits known the world over.
11. See Y.S. Shiriyaev, "Socialist Integration and International Division of Labor," Mysl Publishing House, Moscow 1978, p 11 (in Russian).
12. "Declaration on the Occasion of the 30th Anniversary of the Council for Economic Mutual Aid," NEUES DEUTSCHLAND, 30 June/1 July 1979, p 6.
13. W. Stoph, "All Our Strength for New Successes on the Common Way," NEUES DEUTSCHLAND, 28 June 1979, p 6.
14. In the period 1976-1980, for example, the GDR will obtain from the USSR 88.2 million tons of crude oil, 21.6 billion cubic meters of natural gas, 21 million tons of hard coal, 15.9 million tons of ferrous ores, 375,000 tons of wood pulp, 425,000 tons of cotton and 212,000 tons of copper.
15. E. Honecker, "Die Aufgaben der Partei bei der Weiteren Verwirklichung der Beschlüsse des IX. Parteitages der SED" [The Party's Tasks in the Further Implementation of the Ninth SED Congress Decisions], Dietz Verlag, Berlin 1978, p 41.

16. Sometimes these differences are described as "positive structural differences" (see collective of authors "Socialist Economic Integration..." as before, p 169).
17. See the contribution by P. Bozik in "Aktuelle Probleme der Gesellschaftlichen Entwicklung in der Sozialistischen Laendern" [Topical Issues of Social Development in the Socialist Countries], Dietz Verlag, Berlin 1977, p 71.
18. Such differences may occur temporarily in the different emphasis on adaptation and differentiation, the differentiated growth of the two trends, and so on.
19. Involved here is plant for the oil industry, for mining, the energy industry, ferrous and nonferrous metallurgy, metal cutting machine tools, forges and presses, equipment for the light and food industries, rail vehicles, motor vehicles, tractors, farm machines and roller bearings.
20. See "1978 Statistical Yearbook of the CEMA Member Countries," Statistical Publishing House, Moscow 1978, p 41 (in Russian).
21. Ibid, pp 64 ff.
22. The share of electrical machine construction in machine construction, for example, in the People's Republic of Bulgaria grew from 11.3 percent in 1965 to 30 percent in 1975; in the Hungarian People's Republic from 33.3 percent in 1965 to 37 percent in 1974; in the GDR from 24.3 percent in 1965 to 29.3 percent in 1972; in the People's Republic of Poland from 17.2 percent in 1965 to 23 percent in 1974, and in the Socialist Republic of Romania from 13.2 percent in 1965 to 19 percent in 1975 (see A.I. Subkov/Y.F. Kormov/S.I. Pomazanov, "Socialist Integration in the Industries," Nauka Publishing House, Moscow 1976, pp 239 f (in Russian).
23. See collective of authors headed by V.A. Zhamin, "Structural Changes in the Economies of the Socialist Countries," Mysl Publishing House, Moscow 1976, pp 257 f (in Russian).
24. In the CEMA member countries 95 percent of the total production of excavators, for example, are concentrated in the USSR and the People's Republic of Poland, some 80 percent of buses in the Hungarian People's Republic and the USSR, 99 percent of electric trolleys in the People's Republic of Bulgaria, and more than 75 percent of passenger rail cars in the GDR.
25. In 1980, for example, the share of specialized products in GDR exports of metal processing machine tools will probably amount to 38 percent, forge-press equipment to 66 percent, plastic processing machines to 95 percent, printing plant to 33 percent and textile machines to 75 percent (estimates based on various press reports).

26. "Communique of the 33rd Meeting of the Council for Economic Mutual Aid," *NEUES DEUTSCHLAND*, 30 June/1 July 1979, p 6.
27. See O. Reinhold/G. Schulz, "The Heritage of the Classics and the Features of the Economy of the Developed Socialist Society," *WIRTSCHAFTSWISSENSCHAFT*, No 12/1978, p 1433.
28. Ninth SED Central Committee Plenum. "Mit Optimismus Einem Jahr Neuer Kämpfe und Siege Entgegen. Aus dem Abschlusswort des Generalsekretärs der SED, Erich Honecker" [Approaching with Optimism Another Year of Struggles and Victories. From the Concluding Address of SED General Secretary Erich Honecker], Dietz Verlag, Berlin 1978, p 184.
29. See V.I. Lenin, "What Are the 'People's Friends' and How Do They Struggle Against the Social Democrats," *Collected Works*, as before, Vol 1, p 169.

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CSO: 2300

## INTERNATIONAL AFFAIRS

### BRIEFS

**YUGOSLAV-HUNGARIAN TRADE**--Yugoslav-Hungarian trade in the first 9 months of this year was 1.6 percent less than for the same 1978 period. However, in the total trade volume of \$292.8 million, Yugoslav exports amounted to \$124.7 million, or 45.8 percent more than last year. Hungarian exports increased but were relatively less than last year, amounting to \$168.1 million. The Yugoslav deficit now amounts to \$43 million, compared to \$126 million last year. Our imports are 74.2 percent covered by exports, compared to 60.3 percent last year at the same time. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 2 Nov 79 p 2]

CSO: 2800



## CERTAIN PROBLEMS IN MANAGEMENT-LABOR RELATIONS EXPOSED

## Viewpoint of the Manager

Sofia TRUD in Bulgarian 27 Oct 79 p 2

[Article by Engineer Filip Chernikov, deputy director of the Orgtekhnika Plant in Silistra]

[Text] I began my labor career 21 years ago as a worker, immediately after graduating from technical school. I can clearly state that we have retreated in the field of labor discipline. Today a manager, whether holding a lower or higher position, does not enjoy the prestige of managers 10 to 15 years ago, regardless of the higher educational level of both superiors and workers. Today it is difficult to issue an order to the so-called scarce cadres or else to transfer them from one job to another. The threat of quitting unless they are given the required salary has become a work style and method! Such production workers (and some managers) engage in self-absenteeism and do not condense their work time. Feeling that the enterprise cannot do without them, they commit excesses as well.

The truth is that an influence is exerted on such individuals on all sides--the trade union committee, the party committee, the Komsomol, and the economic manager. However, the results remain weak. I am far from supporting the idea that a barracks order must be developed in the enterprises. However, could anyone tell me how to successfully carry out planned assignments without strong labor and technological discipline?!

That is why I believe that legal-labor legislation must be corrected. The labor code has become obsolete and is used more for establishing the rights of the workers rather than their obligations. Almost nothing is said of managerial rights. It is also necessary to introduce standard wages based on skills, regardless of the place of work (naturally, without work harmful to the health which requires a specific approach). Greater rights must be granted to the primary economic managers in charge of personnel problems and organization at the enterprises. The legal documents (Labor Code, Wage Directive, etc.) must stipulate greater rewards for observing labor discipline and stricter penalties for its violation. The immediate team

and section leaders must be granted the rights to transfer workers and employees with a view to arising changes in the technology, volume of work, and the skill of the workers within a given profession. Once and for all, there must be order in planning. It is true that legal documents have been issued on this matter. It is equally true, however, that the enterprise programs remain uncoordinated with the available raw materials, materials, and marketing possibilities. In the course of the year such important problems are being resolved on a monthly basis....

The problems of labor discipline are numerous and complex, starting with urban transportation (prompt commuting to work and leaving), contractual relations (rhythmical supply with raw materials, securing steady supply of electric power, etc.), and ending with social services to the workers (cafeterias, children's institutions, laundry rooms, etc.). The reason is that any violation is justified with at least one such argument....

Something else is extremely important: Labor and technological discipline may be achieved only if the stipulations are obeyed comprehensively and at all levels, from managers and employees of ministries and departments to the unskilled worker at the enterprise.

#### Viewpoint of the Worker

Sofia TRUD in Bulgarian 27 Oct 79 p 2

[Article by Ivan Trifonov, "Public Catering" worker, Sixth Rayon in Sofia]

[Text] I would like to join this conversation not while occupying the seat of the director but sitting on a stool made of reject materials.

Our legislation has drawn up excellent legal documents. However, violations of the stipulations of a document lead to the drafting of other documents to correct such violations. Consequently, there were people who have considered the norms ineffective. The child of a director goes to school driven in the enterprise's Volga. The mother of another superior is taken to the rest station again in the enterprise's car. In the case of yet another superior, a dump truck filled with gravel is on the way to his cottage. The enterprise maintenance worker spends two days monthly on the "maintenance" of the apartment of the chief. All this is taking place under the nose of both disciplined and undisciplined subordinates who are respectively waiting for the suitable time for personal "manifestations."

What happens to those who have been punished for violating the labor or financial discipline? An audit of a materially liable official will show shortages. The punishment is... transfer to another project. A chief who has violated the trust of an enterprise is penalized with a transfer to the same position in another enterprise. It is natural for the measures to be ineffective!

As a worker, I am disciplined. I am trying to do everything possible to fulfill the enterprise's program in time, as it is my program as well. However, my direct superior does not always think likewise. When I happen to be at a meeting, he takes sick leave. When I am called upon to carry out an assignment, he goes to his village to water his garden. He may not be disciplined but he is a superior. What could I do to him? It is up to my class consciousness to remain or not to remain disciplined in the future. On this basis I believe that the undisciplined superior is socially dangerous. Therefore, in order for subordinates to be disciplined their superiors must be disciplined. How to explain the violation of a number of decrees by managers? They are very rarely "caught" by the law... Yet, the performing workers shrug and sum it up by saying "The state will survive."

Discipline is the unquestionable obligation of all, superiors and subordinates!

5003

CSO: 2200

## DEVELOPMENT OF BULGARIAN MOTOR INDUSTRY

Sofia OTECHESTVEN FRONT in Bulgarian 1 Nov 79 p 2

[Interview with engineer Yordan Popov, director of the engines and motor vehicles laboratory: "Our Motor Vehicle Industry"]

[Text] Currently about 80 percent of transportation facilities for public use in Bulgaria are produced domestically. Work problems of the engines and motor vehicles laboratory.

The engines and motor vehicles laboratory is the basic scientific unit of the Committee for Transport Machine Building. It is working on development in the field of Bulgarian motor vehicle manufacturing. A representative of the editors met with engineer Yordan Popov, director of the laboratory, to discuss with him questions asked by our readers:

[Question] How is the Bulgarian motor vehicle industry meeting the country's requirements for transport facilities?

[Answer] Currently about 80 percent of the public use transport facilities--trucks, buses, trailers, containers, and internal combustion engines used in our country are of Bulgarian manufacturing. All GAZ 53 and LIAZ-Madara trucks, which are the base of our automotive transportation, are assembled at the Madara KA [Motor Vehicles Combine] in Shumen. All buses, with the exception of some luxury models meeting the requirements of tourist organizations, are made in Botevgrad. All hitched transport facilities such as trailers and semitrailers are also produced in the country. Naturally, we are continuing to import a number of types and models of trucks. Our ties with the Soviet Union enable us to replenish our automotive fleet with specialized automotive vehicles most suitable to our conditions.

[Question] Is the production of passenger cars planned in Bulgaria?

[Answer] The laboratory was assigned to make a thorough study of the country's requirements for passenger cars and of the possibility to organize their production in economically advantageous series. The estimates proved that it would be economically justified to produce no less than 200,000 to 220,000 vehicles per year--quantities far in excess of our requirements.



Furthermore, the production of passenger cars is subject to strong fluctuations caused by fluctuations in the world's economic circumstances. This could create extensive economic difficulties for us. That is why, on the basis of our cooperation with the USSR and the other socialist countries, Bulgaria will import passenger cars against exports of automotive machine units produced in the country.

[Question] What are the problems on which the engines and motor vehicles laboratory is currently working?

[Answer] They are both numerous and of national significance. I shall mention the most essential among them.

Currently our most important task is to develop, on the basis of the multiplication approach, a family of small buses and pickup trucks on a universal chassis of different lengths and capacity. The first member of this family is ready. It has successfully passed all tests and is being manufactured serially. By the end of the year several hundred such buses will have been manufactured. It is the Chavdar 5S all-terrain 16-passenger bus. It will be used in agriculture, forestry, and construction, by geological survey brigades, etc. Subsequent models will have a simpler design with a single axle. However, this too triggers new problems such as, for example, the development of a new rear axle with planetary reduction gears in the wheel hubs, the introduction of a five-speed transmission box with overdrive, development of a front axle with independent suspension, etc. The problem of noise reduction in diesel engines is particularly topical yet difficult to resolve. Our D 3900 engines are with direct fuel injection, as a result of which they are among the most economical in the world. However, this also makes them work harder and triggers vibrations. The problem which our specialists will have to resolve is, specifically that of reducing the noise level by 10-15 decibels while retaining high technical-economic indicators.

Another equally important task is to supply agriculture with trailers for the new powerful and superpowerful tractors. In the course of its 15 years of life the laboratory has developed, promoted, and launches in series production all hitched transport facilities required in motor vehicle transportation, ranging from 4-ton general purpose trailers to 32-ton dump semitrailers. The development of heavy trailers for high speed driving along highways and rugged terrains is a complex engineering problem which requires extensive experience and knowledge. Judge for yourselves: Whereas the price of a 4-ton trailer is only one-third that of the vehicle pulling it, the price of a 32-ton semitrailer considerably exceeds that of the truck. Today, on the basis of such semitrailers, we are developing modifications to meet the requirements of our agriculture. Our designers have submitted exceptionally interesting solutions. A 20-ton semitrailer will be pulled in the fields by a K-700 tractor. On a paved road, it could be hitched to a truck. In this way farm goods may be hauled directly from the cooperative fields to the purchasing organizations without unloading and reloading. Savings will be substantial.

[Question] What are the difficulties in the introduction of new goods in the production process?

[Answer] They are mainly the ones affecting any new commodity--a motor vehicle, semitrailer, or steering mechanism. Sometimes, at the end of the testing cycle, which may last months, a defect shows up and everything must be restarted. This violates the schedule of the manufacturing plant which has already planned for the production of the new commodity and is awaiting permission to begin. Fortunately, such cases are rare. Our greatest accomplishment is that all of the laboratory developments are applied. Today it is not only we who approach the plants but the plants approach us as well. The new economic mechanism is encouraging development activities, for the enterprises will have to produce only goods for which there is consumer demand: modern, highly productive, and reliable. Our obligation is to develop goods meeting such requirements.

5003

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## SIGNIFICANCE OF RECYCLING LUBRICATION OIL STRESSED

Sofia OTECHESTVEN FRONT in Bulgarian 26 Oct 79 p 2

[Article by Mikhail Keremidchiev, OTECHESTVEN FRONT special correspondent:  
"Valuable Fuel Is Being Wasted"]

[Text] In the first nine months of the year 23,000 instead of 26,000 tons of oil were delivered to the Leon Tadzher Petroleum Refinery in Ruse for recycling.

Depending on its use, each kind of machine and motor vehicle oil has its period of utilization, after which it can be chemically rebuilt for recycled use.

The collection, storage, purchasing, and recycling of used oils are controlled with a directive issued by the Ministry of Supply and State Reserves, issued in accordance with Council of Ministers decree of 17 December 1975. All consumers must collect and deliver used oils to the branches and bases of the Petrol DSO [State Economic Trust]. They are recycled by the Leon Tadzher Petroleum Refinery in Ruse. Following its reconstruction, the plant has a capacity for recycling 65,000 tons of oil per year, based on modern technology, raising the quality of such oils close to that of oils refined from crude petroleum. Yet, its annual plan amounts to only one-half of capacity and is not being fulfilled.

According to the 8 April 1978 Council of Ministers decision, about 30 percent of the used oil must be returned for recycling. In practice, however, the delivered quantities are considerably lower. Now, when all efforts are focused on the saving of petroleum products, a large percentage of the oils continues to be wasted. The necessary organization for collecting and for the effective reutilization of the oils has still not been created. The wasters of this valuable raw material are not being held accountable. This may be noted in plants, enterprises, motor vehicle bases and, particularly, in the agroindustrial complexes. In many areas close to the technical workshops of the blocks of APK [Agroindustrial Complexes], the soil is saturated with dumped oil. Thus, in addition to losses inflicted on the national

economy the environment is harmed as well. Also to be blamed in this case are the rayon environmental protection inspectorates which, in the majority of cases, tolerate this situation. Thirty-three enterprises and organizations in Silistra and Turgovishte okrugs failed to fulfill their plans for the delivery of oil for recycling in the first half of the year. Ever were they to be fined, who would turn back the wasted and lost oil? Yet, its importance to the national economy may be determined by the following comparison: 150-160 kilograms of oil fractions are extracted per ton of petroleum, whereas 500 to 600 kilograms are extracted per ton of used oil. In other words, one ton of recirculated oil is the equivalent of three to four tons of petroleum.

The stipulation of the directive which states that the allocation of fresh oil to consumers must take place only against delivery of the corresponding share of the used oil must be applied strictly. Consequently, anyone who fails to fulfill this stipulation should be deprived of fresh oils and bear full responsibility for the consequences. On the other hand, it would be proper for those who conscientiously carry out their obligations to be rewarded.

Furthermore, the consumers of fresh oils must have suitable facilities for collecting the used oil with precipitators for retaining the mechanical admixtures and draining pipes for the removal of accidental water amounts. Such requirements, however, are violated as well. The oils are collected in unsuitable containers, and kept in the open, mixed with fuel and water. Over 60 percent of the oil received by the L. Tadzher plant is second grade. Some tankers must be returned, since the processing of the oil becomes impossible.

The obligation of the Petrol DSO to create conditions for gasoline stations to change and collect used oil from motor vehicles is equally not obeyed everywhere. Service standards must be improved as well. The personnel of gasoline stations must carry out their obligations conscientiously. Perhaps a way should be found to reward the interest of private automobile owners to return used oils.

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## SEPTEMBER ECONOMIC RESULTS SUMMARIZED

Prague: HOSPODARSKE NOVINY in Czech 19 Oct 79 p 2

[Article by Federal Office of Statistics: "Commentary. September 1979"]

[Text The growth rate in September of this year compared with last year's figures reached 100.6 percent in industrial gross production and 104.5 percent in construction work completed with internal resources; the procurement of slaughter animals (including poultry) remained under last September's level by 1.9 percent and retail trade of the main trade systems, by 0.6 percent. There was a more clear-cut increase in overall exports than in overall imports.

The increments of production achieved in September in industry and construction did not suffice to strongly decrease the January shortages as compared with the plan. Fulfillment of the annual planned tasks as of the end of the third quarter amounted to: industrial gross production, 72.8 percent; construction work completed with internal resources, 73 percent; retail trade of the main trade systems, 71.8 percent; overall exports, 70.3 percent; and overall imports, 68.7 percent.

In centrally planned industry in September the average daily production was up over the same month last year by 5.3 percent and the overall gross production volume reached the amount of Kcs 51.3 billion. The specifications of the enterprise plans for gross production were fulfilled 100.2 percent in September. The volume of gross production from the beginning of the year until the end of the third quarter amounted to Kcs 442.1 billion, that is, 72.8 percent of the annual planned task. The volume of gross production, compared with the same period last year, increased by 3.1 percent; average daily production for this period, by 3.6 percent. The annual planned increase in gross production is 4.2 percent.

Fulfillment of planned production tasks in individual industrial enterprises continues to be differentiated. Between the beginning of the year and the end of September, with overall fulfillment of the enterprise plans for gross production being 99.7 percent, 246 enterprises, or almost 30 percent of the overall number, failed to fulfill their planned tasks in gross production. The difference compared with the plan for the nonfulfilling enterprises reached the amount of Kcs 3.4 billion by the end of September.

Enterprises with the greatest share of nonfulfillment were those of the CSR Ministry of Agriculture and Food (food industry--27 percent), Federal Ministry of General Engineering (almost 16 percent) and CSR Ministry of Industry (14.5 percent). In comparison with the plan, the overall shortage in gross production, for centrally planned industry as a whole, decreased by Kcs 100 million as compared with the situation by the end of September; it is Kcs 1.2 billion and represents an average daily production for 0.55 of a day.

Production with the most rapid rate of increase during the 9 month period was in general and heavy engineering; in the rubber industry; in the glass, ceramics and porcelain industries although in general engineering and in the glass, ceramics, and porcelain industries the annual planned rate of growth was not achieved. Among other planning groups where increase in production has fallen behind the intents of the annual state plan are primarily enterprises producing construction materials, the food industry, and the wood-working industry.

In agriculture, as of 2 October, corn (for grain) was harvested from 6.7 percent of the planned areas, silage corn from 78.5 percent of the planned areas, and potatoes from 47.9 percent of the planned areas. In all of the krajs the sugar beet harvest is proceeding smoothly. The sowing of winter crops is completed on 464.2 thousand hectares. In animal production, the scheduled purchasing plan was fulfilled by roughly 96 percent in slaughter hogs and milk; in other animal products, the plan was exceeded. On the whole, in January through September, 31.2 thousand tons more slaughter animals (including poultry) were purchased than in January through September 1978, 58.3 million more eggs, and 20.4 million liters less milk.

In the building industry, the growth rate of construction work completed with internal resources of the construction enterprises reached 104.5 in September, and in 9 month 104, as compared with the same period of the preceding year. The growth rate set by the annual state plan is 105.5 average daily production compared with the same period last year increased in September by 9.5 percent; between January and September, by 4.5 percent. On the whole, building enterprises in September completed construction work with internal resources in the amount of Kcs 7.6 billion; between January and September in the amount of Kcs 60.6 billion, that is, 73 percent of the annual goal (at the end of September 1978, 74.1 percent of construction work of the annual reality was completed). In the structure of construction work, falling behind the planned annual goals are primarily construction projects carried out according to supplier contracts for comprehensive housing construction. The number of housing units completed between January and September by the delivery method (39,295) is lower by 5,056 housing units than in the same period last year. Thus, by the end of September, 46.3 percent of the annual plan was fulfilled; last year it was 54.4 percent. Enterprise plans for construction work completed with internal resources were not entirely fulfilled by the end of September 1979. Overall fulfillment was 98.2 percent

(in the CSR, 97.7 percent and in the SSR, 99.2 percent); 111 construction enterprises, or 47.6 percent of the total number, failed to fulfill the planned tasks. The shortage in fulfilling the planned construction work volume completed with internal resources for January through September remained the same as the shortage for January through August 1979 (Kcs 1.1 billion, which represents 3.4 days).

In investment construction, according to estimates, investment work completed in September and deliveries for January through September (excluding the "Z" action [Community Self-Improvement Program] and self-help) reached Kcs 88 billion, that is, 0.3 percent more than in the same period last year. The investment work volume did not reach the planned level, deliveries of machinery and equipment increased less rapidly than set by the state plan for the entire year of 1979. Concerning construction which was designated as binding for investment construction, greater fulfillment of the annual plan was achieved in the volume of completed work and delivery than in other construction. By the end of September, 64.7 percent of the annual plan for investment construction and deliveries was fulfilled.

In public freight transportation, planned transportation tasks were fulfilled on the whole by 99.4 percent in September; in railroad transportation by 100 percent; and in CSAD [Czechoslovak Automobile Transportation], by 99.1 percent. In September, 53.4 million tons of goods were transported by public freight transportation, that is by more 0.7 percent than in September of last year. From the beginning of the year until the end of September, 460.4 million tons of goods were transported which is 72.9 percent of the planned annual goal. Compared with the same period last year, the overall volume of goods transported by public freight transportation was almost the same; the volume of goods transported by rail was 0.7 percent higher and by CSAD, lower by 0.2 percent.

In foreign trade, overall exports in September increased by 11.1 percent compared with the same period last year and overall imports increased by 64 percent; from January through September, overall exports increased by 9 percent and overall imports by 6.2 percent. Of the planned annual goals for exports to the socialist countries 71.5 percent was fulfilled by the end of September; to the nonsocialist countries by 68.3 percent. Of the planned annual planned goals for imports from the socialist countries 69.2 percent and from the nonsocialist countries, 67.9 percent were achieved.

The volume of retail turnover of the main trade systems in domestic trade in September reached Kcs 17.1 billion and remained under the level of September 1978 by 0.6 percent. From January to September 1979 in the main trade systems goods in the amount of Kcs 149.7 billion were purchased which is 2.9 percent more than during the same period last year. The annual planned increase for all trade systems was 2.3 percent. For the 9 months of this year the most rapid growth rate was achieved by Uh. sklad [Coal Storage] (110.5--influence of price regulation in July 1979); Obuv [Footwear] (104.9); Cedok [Czechoslovak Travel Bureau]--public eating places (103.9).

On the whole the monetary income of the people increased by 1.3 percent during the 8 months (compared with the same period last year); income from wages increased by 3.9 percent and exceeded the annual state plan by 0.7 points.

Bank deposits by the people reached the amount of Kcs 147.1 billion as of 15 September 1979 which was Kcs 7.1 billion higher than deposits a year ago.

Currency in circulation as of 30 September 1979 reached Kcs 41,035 million.

[Table Follows]

# BASIC INDICATORS OF DEVELOPMENT OF NATIONAL ECONOMY IN SEPTEMBER

Increments Over Comparable 1979 Period (in percent)

	September	January - September	Federal Plan <sup>1</sup>
Industry:			
Gross production	0.6	3.1	4.2
Average number of workers	0.9	0.8	0.7 <sup>4</sup>
Labor productivity	-0.3	2.3	3.8 <sup>4</sup>
Construction:			
Construction work completed with internal resources	4.5	4.0	5.5
Average number of workers	0.5	0.6	0.9
Labor productivity	4.0	3.4	4.6
Housing units delivered by contracting enterprises	3.7	-11.4	4.1
Procurement:			
Slaughter animals (including poultry)	-1.9	2.4	4.1
Milk	2.2	-0.5	3.4
Eggs	5.8	3.1	3.6
Retail Trade:			
Of the main trade systems	-0.6	2.9	2.3 <sup>2</sup>
Foreign Trade: <sup>3</sup>			
Exports to socialist countries	10.6	6.5	7.4
Exports to nonsocialist countries	11.9	13.2	14.5
Imports from socialist countries	3.3	6.1	9.9
Imports from nonsocialist countries	11.4	6.5	12.2

	September	January - August	Federal Plan <sup>1</sup>
Total sales (for organizations included in the federal plan)	2.5	2.3	
Of which:			
Investments	-10.8	-2.8	-8.7
Domestic trade	4.4	1.4	4.9
Exports (in the plan)	5.8	2.5	5.0 <sup>4</sup>
Other sales (including exports outside the plan)	2.3	2.7	



Investment work and deliveries (excluding Action Z and self-help)	-4.1	-0.5	2.6
Of which:			
Construction work	6.7	0.5	6.2
Machinery and equipment	-17.4	-1.0	-1.8
National income <sup>6</sup>	5.8	3.3	4.3 <sup>5</sup>
Of which:			
Wages <sup>6</sup>	5.7	3.9	3.2
Actual monetary expenditures <sup>6</sup>	8.6	2.6	3.1 <sup>5</sup>

#### FOOTNOTES

1. Increments compared to actual 1978 results
2. All trade systems
3. Data on actual results refer to actual overall transactions, does not include federal plan (in contrast to overall transactions) actions not planned within the framework of cooperation, unplanned reexport trade operations, barter, joint production trade, etc.
4. Increments compared to the expected results of 1978
5. Including interest for loans
6. Data calculated according to the treasury plan of the Czechoslovak State Bank; data for quarter, half-year, and year according to the PPVO [expansion unknown] balance sheet

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CSO: 2400

## NEW AGRICULTURAL PRICES ESTABLISHED FOR 1980

Prague ZEMEDELSKE NOVINY in Czech 27 Oct 79 pp 1, 2, 7

[Article by Dr Jareslav Koci, university lecturer, deputy minister of agriculture and nutrition of the CSSR: "Changes in the System of Economic Means in Agriculture--New Procurement and Sales Prices of Fodder and Fertilizers To Be Introduced Next Year"]

[Text] Higher Profitableness of Cattle-Raising--The Prices of Raw Materials for Fodder Mixes Escalating on World Markets--New Measures Demand Careful Preparation of the Plan for 1980

Upon the decision of the Presidium of the CSSR government, changes will take place as of 1 January 1980 in the system of economic tools applied in our agriculture. Their implementation does not change the attitude of our agriculture to the creation and use of national revenue within the framework of our republics as well as sectors, with the exception of state farms, where the creation of their internal resources will be given an advantage first of all to the detriment of additional grants from the state budget. Nonetheless, these arrangements will affect the financial situation and income of every agricultural enterprise, namely, according to its current structure of production, the conditions in which it is operating, the profitableness it has achieved, and other factors. That is also the basis of the economic and political sensitiveness of the reforms under way.

The main reason leading to the reforms of economic tools is to strengthen the interest of agricultural enterprises and to create more favorable conditions for the necessary structural changes in the production and more efficient exploitation of internal resources of production to the detriment of escalating imports.

In other words, this concerns the creation of more advantageous financial-economic conditions, and stimulation of such measures in production that will foster consistent fulfillment of the policies outlined by the 15th Congress and the decisions of the 13th session of the CPCZ Central Committee held in March 1979. Therefore, not only individual levels of the management but also working collectives of individual enterprises must approach the changes of economic tools from this point of view.

## Compensation to Cattle Farmers Up By 16 Percent

The reforms provide above all economic support for the development of one of the essential factors in the production of every agricultural enterprise, i.e., cattle-raising. This is evident from the following data:

If the total redistribution by these measures amounts--in conversion to the actual situation of 1977--to Kcs 5.1 billion, fully 75 percent, i.e., Kcs 3.8 billion, will be used to raise the compensation for the products of cattle-raising enterprises. Thus, the current compensation which agricultural enterprises are receiving for such products is also raised by more than 16 percent.

In addition to the procurement prices of final products--milk and meat--the prices of products will be adjusted in every stage of the process of reproduction in cattle-raising enterprises, i.e., the prices of calves, heifers, stock and breeding material, as well as prices of individual types of bulk fodder. This will provide approximately the same economic advantages in every stage of reproduction in cattle-raising enterprises, beginning with fodder production, and on that basis, it will offer also favorable preconditions for the development of this branch by means of its concentration and specialization.

The economic support for the development of cattle-raising operations will lead, among other things, also to more efficient utilization of the resources amassed over a long period along this entire vertical line of production, above all, to more rational exploitation of the soil fund designated for the production of bulk fodders, to more efficient management with such fodders, and on that basis, also to better exploitation of useful qualities of individual categories of the livestock.

## Attention Paid Also to Sheep Raising

In conjunction with higher compensations for the products of cattle-raising enterprises and for the same purpose, the compensation will be increased also in sheep-raising enterprises, namely, in all three sectors of utilization, i.e., wool, meat, and processed cheese.

On the other hand, the heretofore profitableness of the production of other animal products will be somewhat reduced, even despite partial increases of their procurement price. For instance, procurement prices will be raised by Kcs 0.30 per 1 kg of live weight in slaughter hogs, where relatively high profitableness has been achieved; at the same time, however, the costs will be raised by more than Kcs 1 per 1 kg of live weight. This means that the continuous favorable trend of the profitableness of their production will be partly lowered. As for slaughter poultry and egg production the situation is analogical, with that difference that the level of profitableness in egg production will help fully cushion the effect of higher costs without raising their current procurement prices. In other animal products, the price of fresh-water fish and procurement prices of honey will be raised.

Therefore, with higher profitability of the products of cattle- and sheep-raising enterprises, and with partially reduced profitability of the production of other animal products, profitability in all branches of livestock production will become more equitable and thus, more advantageous preconditions will be created for their more balanced development. From the point of view of individual enterprises, this will actually eliminate one of the causes of an unequal development of their income situation, determined by the structure of animal production.

Only partial changes will take place in the price tools in certain products of the plant production, as a rule, in conjunction with the reform or with the specification of new standards of quality, for the purpose of raising the interest of agricultural enterprises in improving the quality of their products in terms of their final use, and in the solution of certain partial problems pertaining to special selected crops.

The measures concern, for instance, the specification of new standards for wheat for the food industry and concurrently, also an implementation of differentiated prices of wheat for human nutrition and for fodder, and furthermore, of corn for the manufacture of starch, and of oats for the food industry. Moreover, the norm for late-crop potatoes for consumption has been revised and thereby, their procurement price adjusted. In the Zatec area, a surcharge on the procurement price of hops will be introduced until the decision concerning a new standard of quality. Partial reforms will be introduced also in procurement prices for wine grapes, primarily of the blue varieties, and for certain other products.

#### Why Higher Prices for Fodder Mixes and Fertilizers?

Within the framework of the approved measures, the market prices of fodder mixes will be raised (by [number illegible, possibly 13] percent on the average) and prices of industrial fertilizers will also be increased (by 15 percent on the average). Even with these regulations, however, the prices of fodder mixes and industrial fertilizers will continue to be subsidized with a total in excess of Kcs 3.3 billion.

Market prices of fodder mixes and industrial fertilizers are being raised mainly because they are increasingly more difficult to obtain in foreign, mostly capitalist, markets, and because their prices continue to escalate.

For example, while the average price of 1 ton of imported forage cakes was Kcs 2,754 in 1970, now it is over Kcs 4,100. During the same period the price of imported meal went up from Kcs 4,790 to Kcs 7,741 per ton.

The sky-rocketing growth of prices of imported raw materials for the production of fodder mixes has not been appreciably reflected in the costs of our agricultural enterprises, because for the most part such price effects were compensated from society-wide resources. The situation is analogical as regards imported industrial fertilizers, or as the case may be, raw materials imported for their manufacture.

Consequently, the actual costs of animal production and the relation of the costs in the production of individual animal products have been distorted according to the quota of imported protein components in the fodder mixes designated for individual types of animals. At the same time, however, the necessity to use such fodder rationally has been underestimated, and there has not been appropriate interest shown in supplying proteins from internal resources. As a matter of fact, the prices of forage cakes, calculated in fodder mixes, correspond to only about 60 percent of the prices for which they are procured, and the prices of animal proteins even to as little as 45 percent of the actual cost of their acquisition.

The above-mentioned measures should therefore result in the most efficient use possible of fodder sources obtained with considerable difficulties, as well as in increased attention to the highest possible supply of proteins from internal resources.

#### Fully Compensated Increase

Other approved measures contain also an increase in the current contribution of the JZD [Unified Agricultural Cooperatives] for partial compensation for the cost of their members' social security, with the concurrent change in the principle of its calculation. The contribution of a cooperative for these purposes will continue to be based on the amount of average annual wages of each member of the cooperative according to simplified principles applicable for the computation of income taxes of the workers in the state sector. Thus, the contribution to the cooperative sector will be raised on the whole by roughly 9 points, i.e., to 21.5 percent, from the current 12.5 percent of the wages paid.

This reform will improve the balance of the costs of human labor in both socialist sectors and thus, provide more advantageous preconditions for their cooperation. At the same time, an increased economic pressure is exerted on an economic deployment of the work force, and more favorable economic conditions are created for its replacement with technology. To a certain extent, the new principles will also become a factor controlling the development of wages in individual cooperatives, which makes it possible to rescind the current mandatory tax on excess rewards in the JZD. The significance of the above-mentioned measure stems also from a unified base for the assessment of social benefits to workers in agricultural cooperatives and to other workers.

On the basis of the above-mentioned reforms of procurement prices, agricultural organizations, among them also the JZD, will be fully compensated for the higher costs of the JZD due to their higher contributions for partial compensation of their members' social security, as well as due to increased costs of agricultural enterprises stemming from higher market prices of fodder mixes and industrial fertilizers.



In order to upgrade the care for the members and workers of the JZD and to intensify the collective interest in a growing and more economical production, the current basic allocation to the fund for cultural and social needs will be adjusted from the current Kcs 320 to Kcs 380 per member of the cooperative, and at the same time, the ceiling for supplemental allocations of funds on profits will be raised from 5 to 10 percent.

#### Reform of the Agricultural Tax

A major source for the further growth of production and its efficiency is based on the existing inter-regional, inter-enterprise, and inter-sectoral differences in the exploitation of the soil fund and other means of production. Furthermore, its exploitation is connected, first of all, with measures of an objective, political-organizational, and in some cases, also cadre character.

However, economic tools must provide more efficient assistance here than ever before. This means, in particular, that the economic tools achieve a better balance of the needs and the creation of financial-economic resources between individual areas as well as between enterprises, so that any potential shortage of financial resources, stemming from objective causes, may not result in a chronic lag of certain groups of enterprises operating in various areas or within individual areas.

It should be admitted that this possibility has been based already on the hitherto price relations which favored disproportionally market products of plant and animal origins, predominantly production in more favorable natural conditions and in enterprises with more intensive operation. This problem has been partly resolved by the above-mentioned price reforms which balance the profitability of production of individual products.

Nevertheless, as the completed analyses have proven, it is not possible to react adequately by mere price measures to the idiosyncrasies of natural and production conditions under which enterprises are operating. With uniform procurement prices we apply other supplemental tools for that purpose, such as agricultural tax and differentiated surcharges. Therefore, in order to obtain a better harmony between the creation and the needs for financial resources on the part of individual groups of enterprises, these additional supplemental tools have also been partly revised along with the measures in the area of prices.

First of all, the land taxes will be raised on a differentiated scale in accordance with the quality of individual soils. The total revenue of the land tax, which is raised by this measure by about 15 percent, will be used fully to increase the rate of differential allocations to enterprises operating under less advantageous natural conditions.

At the same time, the current curve of the income tax has been revised so that the agricultural enterprises with profitability up to 5 percent (measured as a ratio of the balance profit, reduced by the land tax paid, to total costs) will be exempt from taxes on profits, and for enterprises with profitability over 5 percent the rates of taxes on profits will be progressively increased according to the amount of taxable profitability. When revising the rates of the tax on profits, the point of departure was the abolition of special taxation for associate production.

The changes in the agricultural tax have been resolved so as not to inhibit the interest in the further growth of production and its better economy even in the most efficient enterprises. This means that even in the future those enterprises which have been operating more efficiently under similar conditions will have more financial resources at their disposal, which will enable them to satisfy not only the needs of the development of their enterprise, but also their workers' social and personal needs.

#### Special Measures for State Farms

Within the existing reforms in the system of economic tools, certain changes will take place also in the economic conditions of state farms so as to consolidate their economic independence and responsibility for good management with the soil and the means entrusted to them.

First of all, the creation of the production-financial plan has been improved in such a way that it has been rendered more comprehensive. As factors in that improvement, for instance, the so called "green" and other unrestricted investments are included in total indicators of capital investment, and thus, the needs for their financial reimbursement are projected in the budget. Along with the creation of budgets, the principle of supplementation of their turnover fund will be enforced in such a way that its increment will fully cover the higher capacity of the livestock and maintain the current share of the turnover fund to cover other reserves.

The price reforms and other measures in the system of supplemental price tools will provide assurances that by fulfilling their production plan in the sense of the stipulated principle, the state farms--with the exception of state farms operating under extreme conditions--will create their own financial resources to cover their costs and to allocate grants to individual funds, above all, to the fund for collective material incentives and to the turnover fund.

This means that in most state farms which still depend on grants from the state budget the measures under discussion will introduce the *khovrashchot* principles with all their consequences for their further development as well as for the implementation of the principles of material incentives and of responsibility.

However, the reforms of economic tools, whose detailed review is presented elsewhere, will produce the anticipated results only if they will not be considered from narrow financial-economic points of view but within the entire complex of measures that must be implemented in every sector of the management and in every agricultural enterprise in order to fulfill consistently the decisions of the 13th session of the CPCZ Central Committee. To ensure their efficiency, they must be introduced also within enterprises to individual workers' collectives. In other words, they must become an integral part of material incentives not only of the leading workers in the enterprise area, but also of individual workers' collectives. It is necessary to prepare the plan for 1980 already from this point of view, and to discuss it with individual workers' collectives and not to waste a moment in which these measures may positively affect the further development in the production. (Subheadings of ZEMEDEL'SKE NOVINY)

## Review of Measures in the Areas of Prices, Supplemental Tools, and Agricultural Tax

### I. Prices of Material Entries

#### 1. Fodder Mixes

Market prices of fodder mixes are raised on the average as follows:

a) Cattle - total	by 8 percent
of which: milch cows	by 8 percent
cattle-fattening	by 6 percent
cattle-raising	by 10 percent
b) Hogs -- total	by 11 percent
of which: hog-fattening	by 9 percent
hog-raising	by 17 percent
c) Poultry - total	by 20 percent
of which: laying hens	by 17 percent
fattening of chickens	by 22 percent
other poultry	by 25 percent
d) Sheep	by 11 percent
e) Other livestock	by 17 percent
f) Fodder mixes containing milk	by 31 percent
Total	by 13 percent

#### 2. Industrial Fertilizers

Market prices of industrial fertilizers are increased on the average as follows:

Combined fertilizers	by 14 percent
Nitrogen fertilizers	by 11 percent
Phosphate fertilizers	by 16 percent
Potash fertilizers	by 31 percent
Total	by 15 percent

## II. Procurement Prices of Agricultural Products, Surcharges and Bonuses

### 1. Animal Products

Kcs/Unit

Product	Unit	Current Situation		Change	
a) Milk	1 litre	In winter	2.50	In winter--Grade I quality	3.10
		In summer	2.20	In summer--Grade I quality	2.80
				In winter and summer reduction for:	
				Grade II quality	0.10
				Grade III quality	0.30
Surcharges and reductions for butterfat above and below 3.6 percent	1 litre	Surcharge for each percent over 3.6 percent:		For each percent above or below basic butterfat (3.6 percent)	
		in winter	0.54	in winter and in summer	0.64
		in summer	0.48		
		For milk with butterfat under 3.6 percent the following reductions will be made:			
		Butterfat	Winter	Summer	
		3,500-3,599	0.054	0.048	
		3,400-3,499	0.141	0.124	
		3,300-3,399	0.213	0.178	
		3,200-3,299	0.286	0.251	
Surcharge to new prices based on the share of intensively exploited meadows and grazing lands	1 litre share	Quality grade			Share percent All quality grades
		I	II	III	
	Up to 10	0.40	0.30	0.10	Up to 20 0
	10 - 20	0.50	0.40	0.20	20 - 30 0.20
	20 - 30	0.60	0.50	0.30	30 - 50 0.70
	Over 30	0.70	0.60	0.40	over 50 1.20
Specialization surcharge to new prices	1 litre	Quality grade I		0.60	All quality grades 0.20
		II		0.50	
		III		0.30	
Trial run surcharge to new prices in the first 3 years	1 litre	Quality grades I and II		0.50	Quality grades I and II 0.50

Product	Unit	Current Situation		Change	
Trial run surcharge to new prices in the 4th and 5th years	1 litre		0	Quality grades I and II	0.20
Surcharge from the private sector and private plot owners	1 litre	In procurement based on quality:			
		Grade I	0.30		0
		Grade II	0.20		0
		Grade III	0		
		If not procured on the basis of quality			
			0.20		0
Specialization surcharge for heifer-raising	1 head	According to stipulations	1500	According to stipulations	3000
b) Slaughter Cattle					
New prices of suckling calves	1 kg live weight	Quality grade A	15.00	Quality grade A	15.00
		B	12.00	B	12.00
		C	7.00	C	7.00
New prices of milk-fed calves	1 kg live weight	Quality grade A	18.00	Quality grade A	24.50
		B	12.00	B	16.00
		C	7.00	C	9.00
New prices of slaughter bulls	1 kg live weight	Quality grade A	16.50	Quality grade A	20.50
		B	13.00	B	17.00
		C	9.00	C	13.00
New prices of slaughter oxen and heifers	1 kg live weight	Quality grade A	16.50	Quality grade A	20.50
		B	13.00	B	17.00
		C	9.00	C	13.00
		T	14.00	T	18.00
New prices of slaughter cows	1 kg live weight	Quality grade A	13.00	Quality grade A	16.60
		B	10.50	B	14.10
		C	7.50	C	11.10
		T	11.50	T	15.10
Surcharge to new prices for young slaughter cows after their first calving	1 kg live weight	Only in quality grade A	3.50	Only in quality grade A	3.50



Product	Unit	Current Situation		Change	
c) Other Livestock *)					
Bonus for calves raised in large-capacity calf-sheds	1 head	According to stipulations	500	According to stipulations	250
Subsidies for pregnant heifers	1 head	From mountainous and hillside areas	3000	From mountainous, hillside and potato-growing area	1500
		From potato-growing area	2000		
d) Products of Sheep-Raising Enterprises					
New prices of slaughter lambs from intensive and semi-intensive fattening stations	1 kg live weight	Quality grade A	12.50	Quality grade A	20.50
		B	11.00	B	19.00
New prices of slaughter ewes, rams and muttons	1 kg live weight	Quality grade A	8.00	Quality grade A	11.00
		B	6.50	B	9.00
		C	5.50	C	5.50
		T	6.00	T	8.00
Surcharge to new price of slaughter lambs from intensive and semi-intensive fattening stations	1 kg live weight	In grades A and B	4.00	According to the share of meadows and grazing land:	
				- under 30 percent	2.00
				- over 30 percent	4.00
Surcharge to new prices for wool on hides	1 kg live weight	In all grades of quality	1.50	In all grades of quality	2.50
New price of processed sheep cheese	1 kg	Quality grade I	22.80	Quality grade I	25.50
		II	21.50	II	23.50
		III	19.00	III	21.00

\* Prices of cattle for raising, breeding and stock purposes will be published at a later date.

Product	Unit	Current Situation	Change
Surcharge to new prices of processed sheep cheese	1 kg	Quality grade I	2.50
		II	2.20
		III	2.00
		Share	According to the share of meadows and grazing lands:
		percent	Quality grade
			I II III
		under 30	4.00 3.00 0
		over 30	6.00 5.00 0
New price of sheep milk (7 percent butterfat)	1 litre		4.50 6.00
Greasy sheep's wool	1 kg	Quality grade I,a	145.00
		I,b	110.00
		I,c	105.00
		I,d	65.00
		II,a	120.00
		II,b	85.00
		III,a	102.00
		III,b	95.00
		IV	92.00
		V	60.00
		VI,a	92.00
		VI,b	90.00
		VII	60.00
Bonus for an increment in the stock of ewes	1 head		300.00 500.00

#### e) Slaughter Hogs

New prices of suckling pigs	1 kg live weight	under 25 kg of live weight	21-25	under 25 kg of live weight	25.00
		for each kg over 25 kg	8.00	for each 1 kg over 25 kg of live weight	13.00
New prices of slaughter hogs -fattened -other	1 kg live weight	Quality grade I	15.00	Quality grade I	15.50
		II	15.00	II	15.50
		III	12.00	III	12.50
		IV	8.00	IV	8.50
	1 kg live weight	Quality grade V	12.00	Quality grade V	12.50
		VI	8.00	VI	8.50
		VII	5.00	VII	5.50

Product	Unit	Current Situation		Change	
f) Slaughter Poultry					
New prices of slaughter chickens	1 kg live weight	Quality grade I	13.50	Quality grade I	14.50
		II	11.50	II	12.50
New prices of slaughter ducks	1 kg live weight	Delivered from 1 October to 30 April		Delivered from 1 October - 30 April	
		- Quality grade I	16.50	- Quality grade I	18.00
		II	13.50	II	15.00
		Delivered from 1 May to 30 September		Delivered from 1 May to 30 Sept.	
		- Quality grade I	13.50	- Quality grade I	15.00
		II	10.50	II	12.00
Ducks over 3 years old				Ducks over 3 years old	10.50
		9.00			
New prices of slaughter turkeys	1 kg live weight	Broilers		Broilers	
		Quality grade I	20.00	Quality grade I	21.00
		II	14.00	II	15.00
		Others		Others	
		Quality grade I	19.00	Quality grade I	20.00
		II	14.00	II	15.00
Surcharges on new prices of slaughter turkeys for specialization	1 kg live weight	For selected enterprises		For selected enterprises	
		2.00		2.00	
New prices of slaughter geese	1 kg live weight	Broilers		Broilers	
		Quality grade I	20.00	Quality grade I	23.00
		II	16.00	II	19.00
		Others		Others	
		delivered from 1 August to 30 April		delivered from 1 August to 30 April	
		Grade I	20.00	Grade I	23.00
		II	16.00	II	19.00
		delivered from 1 May to 31 July		delivered from 1 May to 31 July	
		Grade I	18.00	Grade I	21.00
		II	14.00	II	17.00
		Fattened		Fattened	
		Quality grade I	24.00	Quality grade I	27.00
		II	21.00	II	24.00
		over 3 years of age		over 3 years of age	
		12.0		15.00	

Product	Unit	Current Situation		Change	
Surcharges on new prices of slaughter geese for specialization	1 kg live weight		0.00	to selected enterprises	2.00
g) Other Animal Products					
Freshwater fish	1 kg	Quality grade I	11.68	Quality grade I	13.68
		II	9.43	II	11.43
		III	4.48	III	6.48
New prices of freshwater fish is raised by Kcs 3/kg for example, new price of carp					
Hatchery eggs					
Hen-meaty types	piece		1.90		2.20
Hen-laying types	piece		1.50		1.90
Goose feathers*)	1 kg		30.00		100.00
Bee honey	1 kg		22.50		25.00

\*) From socialist agricultural organizations.

## 2. Plant Products Product

Kcs/unit

Product	Unit	Current Procurement price	Condition Sur-charge	Change Procurement Price	Sur-charge
a) Cereal Grains					
Wheat	ton	1550	0	X	X
Wheat for manufacture of pasta	ton	1550	850	2550	0
Wheat for food industry	ton	X	X	1700	0
Fodder wheat	ton	X	X	1550	0
Rye-procurement for state funds	ton	1550	150	1550	150
Rye-procurement for fodder funds	ton	1550	0	1550	0
Malting barley	ton	1700	0	X	X
Malting barley "choice"	ton	1700	200	1700	200
Malting barley of standard quality	ton	X	X	1700	0
Fodder barley	ton	1550	0	1550	0
Oats	ton	1550	0	X	X
Oats for food industry	ton	X	X	1800	0
Fodder oats	ton	X	X	1550	0
Corn in grain	ton	1850	0	1850	0
Corn for starch manufacture	ton	X	X	2100	0
Millet	ton	1700	0	3000	2000
Moha	ton	1150	0	1550	0
Barnyard millet	ton	1150	0	1550	0
Sugar sorghum (edible)	ton	1450	0	1550	0
Broom sedge (fodder)	ton	1180	0	1550	0
Hybrid Triticale	ton	550	0	1550	0
b) Edible Legumes					
Edible yellow peas-					
Quality grade I	ton	X	X	5000	1400
Quality grade II	ton	X	X	4500	1400
Edible green peas					
Quality grade I	ton	X	X	5000	1400
Quality grade II	ton	X	X	4500	1400
c) Dry Hops					
Regional surcharge to new prices for quality grades I through III to selected agricultural enterprises in the production area of Zatec	ton	X	X	0	6000
d) Potatoes for Consumption - Late Harvest*)					
Kidney potatoes	ton	1800	0	X	X
Choice	ton	1200	0	X	X
Quality grade I	ton	1100	0	X	X
Quality grade II	ton	1000	0	X	X
Quality grade III	ton	800	0	X	X
*) current Czechoslovak standard					



Product	Unit	Current Condition		Change	
		Procurement price	Sur-charge	Procurement price	Sur-charge
Salad-type Potatoes**)	ton	X	X	1800	0
Quality grade I	ton	X	X	1150	0
Quality grade II	ton	X	X	1000	0
Surcharges to new prices for storage:					
December	ton	0	250	0	250
January	ton	0	290	0	280
February	ton	0	290	0	300
March	ton	0	350	0	330
April	ton	0	350	0	400
May	ton	0	450	0	500
June	ton	0	450	0	600
e) Wine Grapes for Extraction					
Blue varieties with 18 hl/kg sugar content:					
Quality grade I.a	ton	7900	0	9900	0
Quality grade I.b	ton	6500	0	8500	0
Quality grade II	ton	5400	0	6900	0
Quality grade III.	ton	4400	0	5900	0
Surcharge to new prices for wine grapes delivered from lands with inclination over 10 percent:					
Inclination 10.1-15 percent	ton	X	X	0	1400
15.1-20 percent	ton	X	X	0	2000
over 20 percent	ton	X	X	0	3000
f) Hemp - Stems					
Quality grade I	ton	1700	0	2200	0
Quality grade II	ton	1400	0	1900	0
Quality grade III	ton	1000	0	1500	0
Quality grade IV	ton	500	0	500	0
g) Poppy Heads					
Empty, hand-broken	ton	4000	0	X	X
Empty, crushed	ton	3200	0	X	X
Empty	ton	X	X	5600	0

\*\* ) new Czechoslovak standard

### III. Differential Surcharges

#### 1. JZD [Unified Agricultural Cooperatives] in the CSR

Natural location	Rate per Kcs 100 of adjusted earnings		Natural location	Rate per Kcs 100 of adjusted earnings	
	Current situation	Change		Current situation	Change
HM 16	1.00	3.00	V 8	8.00	9.00
P 7	2.00	2.00	P 8	9.00	10.00
P 16	2.00	3.00	P 12	11.00	15.00
P 20	2.00	2.00	V 3	11.00	12.00
V 1	2.00	3.00	H 1	12.00	17.00
HM 12	3.00	4.00	P 18	13.00	15.00
P 10	3.00	4.00	V 5	13.00	17.00
P 17	4.00	6.00	P 15	15.00	18.00
V 2	4.00	5.00	H 2	15.00	21.00
V 7	4.00	5.00	V 9	16.00	21.00
P 11	5.00	7.00	H 5	16.00	21.00
P 13	5.00	7.00	H 6	20.00	25.00
P 21	5.00	10.00	V 6	21.00	23.00
P 5	7.00	7.00	H 3	22.00	27.00
P 14	7.00	8.00	H 4	26.00	33.00
V 4	8.00	9.00			

#### 2. JZD in the SSR

CME 20	5.00	6.00	H 8	22.00	25.00
CME 18	6.00	10.00	HM 20	24.00	27.00
HMt 11	6.00	8.00	HM 21	26.00	31.00
CME 22	7.00	11.00	HMt 10	26.00	30.00
HMt 4	7.00	8.00	P 25	28.00	28.00
HMt 5	7.00	12.00	P 26	28.00	29.00
HMt 12	7.00	8.00	V 13	33.00	36.00
HM 23	7.00	8.00	P 27	33.00	37.00
CME 19	8.00	12.00	HM 22	33.00	37.00
HMt 8	10.00	15.00	H 9	35.00	39.00
HM 17	11.00	11.00	H 10	35.00	40.00
P 22	12.00	12.00	H 12	39.00	44.00
V 10	12.00	13.00	P 28	45.00	48.00
V 12	12.00	14.00	V 14	45.00	46.00
H 7	13.00	14.00	P 29	47.00	50.00
CME 21	13.00	17.00	H 11	50.00	54.00
HMt 13	13.00	16.00	H 13	56.00	60.00
HMt 6	14.00	19.00	V 15	65.00	66.00
HMt 9	14.00	21.00	V 16	67.00	68.00
HM 18	15.00	19.00	P 30	67.00	68.00
HM 24	16.00	18.00	P 31	67.00	68.00
V 11	17.00	24.00	H 14	67.00	70.00
P 23	17.00	19.00	H 15	67.00	70.00
P 24	18.00	22.00	H 16	67.00	70.00
HM 19	20.00	25.00	H 17	67.00	70.00

### 3. State Farms

Group of natural conditions	Rate per Kcs 100 of adjusted earnings		Group of natural conditions	Rate per Kcs 100 of adjusted earnings	
	Current condition	Change		Current condition	Change
1	-	-	13	25.00	33.00
2	2.00	2.00	14	28.00	37.00
3	4.00	4.00	15	31.00	41.00
4	6.00	6.00	16	35.00	45.00
5	8.00	8.00	17	40.00	50.00
6	10.00	10.00	18	45.00	55.00
7	12.00	13.00	19	50.00	60.00
8	14.00	16.00	20	60.00	65.00
9	16.00	19.00	21	70.00	70.00
10	18.00	22.00	22	-	75.00
11	20.00	25.00	23	-	80.00
12	22.00	29.00			

### IV. Agricultural Tax

#### 1. Land Tax

Natural location	Rate per 1 hectare of agricultural lands in Kcs		Natural location	Rate per 1 hectare of agricultural lands in Kcs	
	Current Situation	Change		Current Situation	Change
CH 1	1000	1300	CHt 13	350	400
CH 15	1000	1500	CH 9	350	400
CHt 1	900	1000	CH 10	350	400
HM 1	900	1000	CH 14	350	500
CHt 14	850	1500	HM 14	350	350
CHt 2	800	800	CHt 11	320	250
CH 2	800	1000	HMt 2	320	250
CHt 15	750	1100	CH 8	300	350
CH 12	750	900	HMt 7	300	300
HM 2	750	800	HM 6	300	350
CH 3	700	750	HM 8	300	350
CHt 9	670	1300	P 1	250	250
HMt 1	650	650	CHt 5	200	250
CHt 8	630	750	CHt 7	200	300
CHt 6	600	700	HM 15	200	250
CHt 3	550	700	CHt 23	150	150
CHt 4	550	650	CH 11	150	150
CHt 16	550	650	P 2	150	150
CH 4	550	600	P 3	150	150
CH 5	550	600	HM 10	140	150
CH 13	550	700	HM 11	130	50
HM 3	550	600	HM 7	120	150
CHt 12	450	600	HM 13	120	100

Natural location	Rate per 1 hectare of agricultural lands in Kcs		Natural location	Rate per 1 hectare of agricultural lands in Kcs	
	Current Situation	Change		Current Situation	Change
CM 6	450	500	P 9	120	150
CM 7	450	500	P 19	120	100
HM 5	450	550	HMt 3	50	0
CMt 17	430	500	HM 9	50	50
CMt 10	400	500	P 4	50	0
HM 4	400	400	P 6	50	0

## 2. Tax on Profits

Amount of taxable profitability in percents	Rate of the tax base	
	Current situation	Change in percent
Under 5	0.8 percent for	0
over 5 to 15	each 1 percent	0 + 2.00 each
over 15 to 20	profitableness	20 + 1.9 each
over 20 to 25		29.5 + 1.5 each
over 25 to 30		37.00 + 1.2 each
over 30 to 35		43.00 + 0.9 each
over 35 to 40		47.5 + 0.7 each
over 40 to 48		51.00 + 0.5 each
over 48		55.00

### Note:

1. Taxable profitability is calculated, with accuracy in hundredths of percents, as the ratio of the balance profit, reduced by the land tax paid, and increased by the item addible pursuant to Article 12 paragraph 1 letter a) of Law No 103/1974 of the Collection, to total costs reduced by the item addible pursuant to Article 12 paragraph 1 letter a) of Law No 103/1974 of the Collection, and increased by the value of the live-stock procured.
2. The tax is based on the balance profit (loss), shown in the accounts, increased by items that must be added, and reduced by deductible items.
3. Factor "a" equals the percent of profitability above the lowest limit of the appropriate tax zone, with accuracy in hundredths of percents.

9004

CSO: 2400

## ECONOMIC, TRADE RELATIONS WITH UNITED STATES VIEWED

Budapest FIGYELO in Hungarian No 42, 17 Oct 79 p 9

[Article by I.G.: "Most Favored Nation Status; Hungarian-U.S. Trade]

[Text] The Hungarian-U.S. Economic Council held its fifth plenary session in Budapest on 15-16 October, the beginning of this week. This joint organization was created by the Hungarian and the U.S. Chambers of Commerce in 1975, i.e., in a period when agreement in some trade areas (meat inspection and cotton textile agreements, most favored nation status in the use of U.S. and Hungarian ports), coupled with the settlement of outstanding property claims and financial problems, already foreshadowed the imminent end of more than a quarter century discrimination. The new trade agreement was signed in the spring of last year; it became effective at midyear, on 7 July. Since then, both countries conform to the provisions of GATT in mutually providing most favored status and non-discriminatory treatment.

## Chicago - Budapest

Normalization of the atmosphere and conditions of economic and trade relations provided a new direction for the activities of the Hungarian-U.S. Economic Council. During the years prior to the signing of the trade agreement, the activities of the Council were centered in part on the normalization of intergovernmental economic relations and in part on the exchange of information and the building of links. After the introduction of most favored nation status, the emphasis shifted to the establishment and expansion of cooperation between companies: symbolically speaking, the focus has been on the creation of business.

This trend was clearly visible at the Chicago session of the Council in October, 1978. The U.S. side among other things, presented information, on marketing techniques employed in the United States and the product liability system; the Hungarian side discussed export potential, development plans and foreign trade links of 6 production sectors: pharmaceuticals, electronics, chemical and petrochemicals, machine tools, industrial consumer articles and the aluminum industry.



The Budapest session also concentrated on business-related topics. The plenary session informed U.S. businessmen about various services available in Hungary (expositions, advertisement, market research, legal and financial services, insurance and shipping). The agenda of the meetings of working committees included food industry machinery, machine tools, packaging, irrigation, water management and soil improvement. (Hungarian reports discussed the domestic situation of manufacturing and applications, while U.S. speakers dealt with the U.S. market sector in question, cooperation opportunities and, with regard to the field of packaging, the packaging machine industry within the U.S.A.)

Companies with an interest in Hungarian-U.S. economic relations and increasing bilateral trade are participating in the work of the Council. Among the U.S. companies are Occidental Petroleum, Data products, Atalanta Corporation, General Motors, International Harvester Co., Continental Group, Monsanto Co., Advance Pressure Casting Corporation as well as Katy Industries Inc., Corn Production System Inc., Corning Glass International S.A., Holstein-Friesian Association and Steiger Tractor Inc., well-known as a result of past cooperative ventures and purchases. The Hungarian section of the council has almost 100 member enterprises, both in the foreign trade and the productive sector. The activities of the section have increased substantially since the new trade agreement came into effect.

#### Joint enterprises and agencies

Signs of an upsurge in economic and trade relations may be seen both on the intergovernmental and company level. On the Hungarian side, a deputy prime minister as well as a number of ministers and deputy ministers conducted negotiations in the United States; U.S. legislators visited Hungary. The Hungarian-U.S. Mixed Trade Commission was formed last spring; it held its first session under the chairmanship of deputy ministers. A trade office was opened in Chicago. Dow Chemical opened an office in Budapest, followed by the National City Bank of Minneapolis. (We might point out that the Hungarian National Bank has an office in New York.) Among Hungarian enterprises with a relatively long U.S. market presence, Tanninpex was preparing to set up a jointly owned trade firm and Hungarotex worked on the establishment of a wholly owned trade subsidiary. (United Incandescent Lamp Factory founded Action Iungagram, a jointly owned production and marketing company, in 1978. Medicor set up Trans-Med X-Ray, a jointly owned trading company. Medimpex North America is a wholly Hungarian-owned trading company established by the Hungarian pharmaceutical trading enterprise.)

The number of ongoing cooperative ventures now stands at 65 and negotiations are in progress regarding 50 more cooperative ventures, all part of the continuing development of economic and trade relations.

Most favored nation tariffs have been in effect within Hungarian-U.S. trade for only one quarter. Their favorable effects have not yet fully taken hold. It is true that the value of bilateral trade rose by 20 percent last year; Hungarian exports rose by 30 percent. Although dollar imports to Hungary increased only slightly during the first half of this year, Hungarian imports from the United States rose by almost 20 percent; Hungarian exports to the United States grew by 50 percent. (It must be made clear that punitive tariffs were still valid during the base period.) On a yearly base, the likely assumption is that trade will expand at a 20 percent rate, which may be regarded quite high within the trade of both countries. (The value of bilateral trade reached 50 million dollars at the beginning of the 1970's; this year, it will approach 300 million dollars.)

### The Key Task of Development

The key task of the development of Hungarian-U.S. trade cooperation and economic relations for some time to come will be the widening and enrichment of the product structure. During the period of discrimination, trade was characterized by an extraordinary product structure. For example, during the first half of the 1970's materials and semi-finished products comprised 13 to 15 percent of Hungarian exports, industrial consumer articles 40 to 45 percent and food industry products 42 to 45 percent. In truth, the entire product scale consisted of a few dozen products. (Canned ham, incandescent lamps, flat glass and stamps accounted for more than half of Hungarian exports.) The situation was similar with regard to imports: a few products, e.g., soybeans, breeding stock, raw hides agricultural machinery, played a decisive role.

In recent years trade developed along more diversified lines. Although canned ham is still the most important item among foods which together represent 35 to 36 percent of all exports, in the category of consumer goods women's shoes have overtaken incandescent lightbulbs as the most valuable item. The value and share of textiles and clothing products are also increasing significantly. Sales of other industrial consumer articles have also begun, although on a smaller scale. Substantially more diversification may be seen in the product structure of imports: this is in part related to the fact that the value of imports is about 50 to 60 percent greater than that of exports.

Cooperative ventures are especially important for increasing Hungarian exports and expanding the export product scale. We find that cooperative ventures, e.g., those between Raba and Steiger, Levy and May First, Eaty and the Quality Shoe Factory, Taurus and B.F. Goodrich, involving licence cooperation, have contributed to significantly increased Hungarian exports and substantially wider product scale. It is undoubtedly true that enterprises possessing a suitable marketing organization, i.e., partially or wholly owned trading companies, represent and sell a substantial portion of Hungarian exports; at the same time, creation of such a marketing organization itself assumes market acceptance and a substantial export volume of the products in question.

It is precisely in the area of product introduction and acceptance that cooperative ventures are becoming important for export development. Until recently, only a small number of trading or producer enterprises had intensive business relationships with U.S. firms. Most enterprises learned about the special features of the U.S. marketplace and accepted marketing methods only from brochures. Under these conditions, the most practical way to introduce themselves into the U.S. market is through cooperative ventures. Although the cooperative ventures mentioned among the examples were established between large enterprises (they do not involve very great volumes, however) the differences in scale between the two economies also suggest that production links should be established with small and medium size companies.

The mere year and a half which passed since the signing of the new trade agreement demonstrates that the development of Hungarian-U.S. economic relations has accelerated relative to the past; continuation of this trend is likely. One must also mention that signature of the agreement opened the door for Hungary to obtain CCC credits to finance U.S. agricultural exports and EXIM bank loans to finance the export of big-ticket complete factory equipment. However, the U.S. Trade Act still says that trade agreements with socialist countries are valid for three years; the validity of such agreements is open to reexamination by the legislature every year and they may be canceled under certain conditions. Whether intended or not, this state of affairs will narrow the possibilities of trade development and pose an obstacle to the utilization of long range cooperative ventures and projects to expand trade which, in general, require investments.

9164

CSO: 2500

OFFICIAL INTERVIEWED ON MODIFICATION OF ECONOMIC REGULATORS

Budapest NEPSZABADSAG in Hungarian 4 Nov 79 p 5

[Interview with Attila Madarasi, state secretary for the Ministry of Financial Affairs, by Pal Eotvos; date and place not given]

[Text] A few days ago the Council of Ministers decided on the modification of the system of economic regulators. The government had approved the principles for further development earlier and the enterprises had been informed about these. At that time the interested organs received the task of submitting and issuing by 31 October those regulations which would precisely fix the prescriptions to be valid after 1 January 1980. These have now been approved.

We will return hereafter to the details of the modifications--including the controls affecting the large agricultural operations. On this occasion we asked Attila Madarasi, state secretary for the Ministry of Financial Affairs, about the general guiding principles for the changes and the character and essence of the aspirations expressed in them.

[Question] The Council of Ministers has adopted an extensive report, of several hundred pages, concerning the modification of the regulators. If we can approach the question from this formal side, this indicates that comprehensive modifications, extending to details, are involved. How do the present measures fit into the longer period of the development of economic guidance and how do the modifications of the regulators fit our longer range economic policy goals? Could you, if possible, define for our readers what a regulator is and what the system of regulators is?

[Answer] Before all else, the system of economic guidance as a whole serves the realization of economic policy goals. So the chief elements of the system--planning, regulation and the organizational system--must work in a coordinated fashion. It is very essential that in preparing for the Sixth

5-Year Plan we are developing further all three elements of this system. This work is going according to plan. But it is very important that a basic modification of the system of economic regulators should be realized before the beginning of the 5-year plan because then the preparation of plans can take place on these new foundations.

Economic regulation is that element of the guidance system with the aid of which--on the basis of the people's economic plan--conditions and requirements are formed to orient the enterprises in the course of their economic activity. No special explanation is required as to how important a role is played by prices, enterprise income controls, wage control, prescriptions defining foreign contacts, etc.

The chief direction in the changing of the regulators can be formulated easily: Action for renewal is needed in every area of the economy and the qualitative side of our work is receiving ever greater emphasis. This is a process which has lasted a long time but it necessarily accelerates. Even at the beginning of the 1960's the conversion of the economy to an intensive developmental phase had begun in our homeland but in the 1970's the external conditions determining the development of the Hungarian economy changed significantly too. Adaptation to these requires changes at many levels. This recognition was disclosed and confirmed by the October 1977 resolution of the Central Committee which designated the direction and content of the long range economic policy goals and the chief tasks for the development of the economic guidance system. According to the resolution we must accelerate the structural transformation of our entire economy and must greatly improve economicalness, efficiency, quality and the adaptability of our entire economy. On this basis our most important goal today, over the shorter and longer run alike, is to improve the balance situation of the Hungarian economy by which we mean improving the foreign and the domestic--for example budgetary--balance.

The changes in the regulator system indicate our long range economic policy goals. The system of economic regulators will serve these goals adequately if the price, value and income processes of the economy develop through normative rules--thus generally valid rules. The difference in enterprise incomes must express differences in the efficiency of the work of the enterprises and we must strengthen the role of profitability, as an ordering principle, in the utilization of incomes. We must also ensure a definite degree of income centralization in order to improve the balance situation of the economy.

The magnitudes in the system of regulation have developed too. These magnitudes represent extra tasks for the enterprises. We start from the position that we have reserves so we can progress more quickly in improving efficiency, in decreasing expenditures, in increasing productivity and in modifying the structure. When setting the magnitudes we must start not only from the general requirements but also from the concrete economic



policy tasks for 1980 and for the Sixth 5-Year Plan being prepared. Among other things this means that we must realize magnitudes in the distribution of incomes which correspond to the lasting lower increase in that part of the national income which can be used domestically. Such a regulation of purchasing power will serve to strengthen the balance of the people's economy and an improvement in export capability.

[Question] The regulators encourage certain behaviors and trends to try to dissuade from others. Improving the efficiency of production and the balance situation of the country are now fundamental requirements for our economy. What behaviors must be strengthened primarily now?

[Answer] The regulator system now unambiguously formulates those external conditions which play a crucial role in the management of the enterprise. For example, the effect of world market prices on internal prices is receiving an important role. The link between performance and wages is becoming closer in wage regulation, there is a strengthening interdependence between efficiency and personal interest. The value judgments of foreign customers are becoming much more direct for exporters.

There are increasing demands on production and marketing in every area. I believe that this is an aspiration supported by society as a whole, and it is a necessity. Foreign customers--and this applies to all customers--are making ever greater demands in regard to goods, but I would like to emphasize that even the domestic purchaser wants good quality, durable, nice appearing and reliable products for his money.

So we want to encourage that enterprise behavior which can follow the increasing demands. Adaptability is of outstanding significance.

I believe that it is very essential from the social viewpoint too that leaders and workers increase the demands they make of their work. The fulfillment of their obligations will be required more consistently and the right to rewards can be won only on the basis of work. I am convinced that this is also just.

[Question] Changes in the price system are one of the most essential elements in the regulator changes. Our prices--if I may put it this way--are constructed from below, they are made up of the expenditures needed to produce the product. But the world market does not always honor our expenditures (how much energy, material, work, etc. we use).

I know that this is quite a simplification but I think we should take it as a starting point for an explanation of the interdependencies of the price system.

[Answer] The most essential change really will be in the producers price system. This means not only that the prices of products which have become more expensive for us abroad will be realized in domestic use but also

that we will transform the entire producers price system. Central to this is the fact that world market price changes will influence not only the prices of products traded in foreign trade but also our entire domestic price system. The general argument for this is that foreign trade has a very great weight deriving objectively from the structure of our economy. The favorable or unfavorable development of this trade has a direct effect on our national income. It is also a direct argument that our development today and in the period ahead depends on whether we can improve our present terms of trade, our export capability and the foreign exchange yield of the economy. So the prices of raw materials and energy will depend on the import prices and the domestic prices of the so-called competitive processing areas--the machine industry, the chemical industry and light industry--will depend on the economicalness of export achieved.

So the standard for enterprise performance will be world market recognition. Thus construction from below will be less and less characteristic of our prices. We want to put a limit on our internal prices by regarding the world market price as the starting point in order to see if the world market evaluates the work invested in our products the same way we do.

As we turn more and more toward the international standard the significance of foreign trade work will increase and we will improve interest in this area. The foreign trade tax burdening the foreign trade enterprises will largely disappear. It is very important that better and more flexible contacts develop between the producing and the foreign trade enterprises. There will be greater encouragement for the creation of joint associations of producing and foreign trade enterprises. Regulation will aid this. It will become possible to create so-called developmental associations, which means in practice that the producing and the foreign trade enterprise, on the basis of common interests, can work together to improve, for example, the packaging of goods, storage possibilities and the marketing organization working abroad. Thus, to sum up, an improvement in foreign trade can be seen as a very definite requirement.

I must also note that capitalist countries which are important to us from the point of view of foreign trade on the international market put discriminative burdens on a few of our products. This makes an evaluation of Hungarian work difficult so we must take action in international economic and political forums against the disadvantageous discrimination.

[Question] For years there has been criticism of our wage management, namely of the wage level management. There have been favorable changes in this regard recently and wage bill management tied to performance is now becoming general. What effect can be expected from this?

[Answer] In the first place, for the sake of easier understanding, I will briefly describe what these concepts mean. Wage level control controls wage increases per capita; wage bill control controls the total wages which

the enterprise can pay to all the workers in the given period. It is understandable that the advantage of the latter as compared to the former is that the enterprises--under certain conditions--can use the wages deriving from manpower savings to raise wages. At the same time, increasing the number of personnel is unfavorable to the enterprises because the wages of the extra personnel will eat up the money otherwise available for wage increases.

As wage bill management tied to performance becomes the primary focus we can expect first of all that there will be a differentiation of the wage development possibilities of the enterprises according to efficiency. That enterprise which improves efficiency more will have greater wage development possibilities, especially if it achieves the same performance with fewer personnel. What is characteristic of wage bill interest is that manpower management is of increasing importance in wage policy.

The regulations now appearing fix those magnitudes which will form the possibility for increasing wages. Naturally this will have strict limitations. But it must be noted that in the future every enterprise will have a way to increase wages to a minimal extent--at least to the degree defined in the plan.

In addition to all this a modernization of the internal enterprise interest system is indispensable, and this is an enterprise task. There is need for a substantial change in this area. If we cannot achieve distribution according to work then the favorable changes may slow down; indeed the system may become rigid. I would like to emphasize this especially here.

[Question] I would like to pick out a few terms frequently used in connection with the regulators--normativity, differentiation.

[Answer] The two concepts are closely interdependent. Normativity really means nothing more than that regulation establishes uniform requirements for the management organizations. It makes possible the generation of income and the utilization of the income generated under the same conditions. We regard this as fundamental because only normative regulation can compare the economic achievements of different enterprises. It is obvious that if we deviate from this then that organization which can create or use income under conditions more favorable than the uniform requirements will have an advantage which is not based on its own efficient production. This is why there is a close interdependence between normativity and differentiation; with a uniform standard we can always find the enterprises which are better or worse than average. The difference which thus develops is not an end in itself but rather an economic necessity; on this basis those which are managing better can develop more dynamically and it will force those which are below average to improve the efficiency or structure of their production.

If this is too general let me put it this way: How and to what extent does financial regulation modify the profitability developed by the price system; should income withdrawals be uniform and valid for everyone or should they be differentiated?

The principle of normativity answers both questions this way, that financial regulation should not differentiate, or should do so only in very justified cases--much less than today. The general magnitude of the withdrawals will be uniform--in the areas of profit interest. The enterprises will pay 10 percent of their profits to the councils as an urban and community contribution; 45 percent of the remainder will be transferred to the state budget as a general profit tax. Taxation of the profit set aside for the sharing fund is also uniform according to a progressive tax scale--depending on what percentage of the wage is set aside. So enterprises will be differentiated according to how much profit they achieve.

[Question] Everyone--in general--agrees with differentiation. But realizing this task will not be free of conflicts either economically or socially.

[Answer] It is true that it is easier to get people to accept the principle of differentiation than it is to realize it in practice. On the basis of what has been said above it is difficult to dispute the necessity of this principle but in the course of putting it into practice there will be difficulties--obviously among those affected unfavorably. One is aware of the argument that the enterprises must be given the same chances by differentiating the conditions with regard to different circumstances. In a certain sphere this is objectively true and that is why the regulator system makes a distinction in those areas where the general regulation or profit interest cannot be realized or can be realized to a lesser degree. In the case of enterprises falling in the sphere of profit interest however the differentiation of conditions, that is levelling the situation of the enterprises from the outside, has not proven successful. The history of our economy thus far offers innumerable examples of effects of this which are contrary to an improvement of efficiency. So we must assume the unfavorable effects deriving from differentiation too. This can be done only if public thinking judges the changes on this basis, if social judgment supports this solution, which is often accompanied by serious problems. This is especially true now when we must use the resources at our disposal with great circumspection and in a very selective way, when we cannot turn our resources to supporting those who achieve weak results.

[Question] Much has been said about the best, about the most efficient. What chance do those in the middle have to catch up and what possibilities are there for those "lagging behind"?

[Answer] It is not by chance that we are counting primarily on the best and most efficient enterprises in laying the foundations for future development. This general economic policy requirement does not mean that we want

to deprive the so-called middle field or even, as you put it, those lagging behind of the possibility of catching up. In the case of those enterprises capable of catching up in the future they can make use of support for the modernization of production. The justification for this must be established on the basis of the world market standard. This form of support will make it possible to catch up so it is necessarily temporary, the magnitude of it will be decreasing and it is tied to strict conditions. But those enterprises which are weakest by international standards cannot receive such temporary state aid. They must prove themselves first by their own efforts. Only on this basis can they later make use of credit for development based on their improving efficiency or make use of support to modernize production. We must face the fact that enterprises which have no prospects must have their activities reduced or reorganized. It is a general principle of regulation that the developmental possibilities of the enterprises are defined by their accomplishments; thus that enterprise which begins to improve will never be artificially pushed back.

To sum up I might say that for these enterprises the possibility of catching up depends on whether they are capable of adapting to the new requirements, discovering their internal reserves and renewing their activity. Even heretofore the system of regulation offered many opportunities for flexible enterprise management. In the future it will help the development of those who choose action--although it is true that the conditions will be harder than those today.

8984

CSO: 2500



## OVER-CONCENTRATION REDUCING STATE FARM EFFICIENCY

Budapest FIGELO in Hungarian 31 Oct 79 p 13

[Article by Dr Ferenc Vagi: "State Farms: Increasing Concentration- Decreasing Efficiency"]

[Text] A swift increase in concentration was a fundamental characteristic of the growth of the state farms in the period between 1967 and 1977. This is not a new phenomenon, but in a few ways it is. In the first place the increase in production value per enterprise not only surpassed the increase in cultivated area and manpower but also the increase in fixed and circulating assets. The enterprise concentration of production value exceeded the production factors and by the end of the 1967-1977 period the concentration was accompanied by somewhat better utilization of the forces of production and by a slight improvement in the efficiency of production.

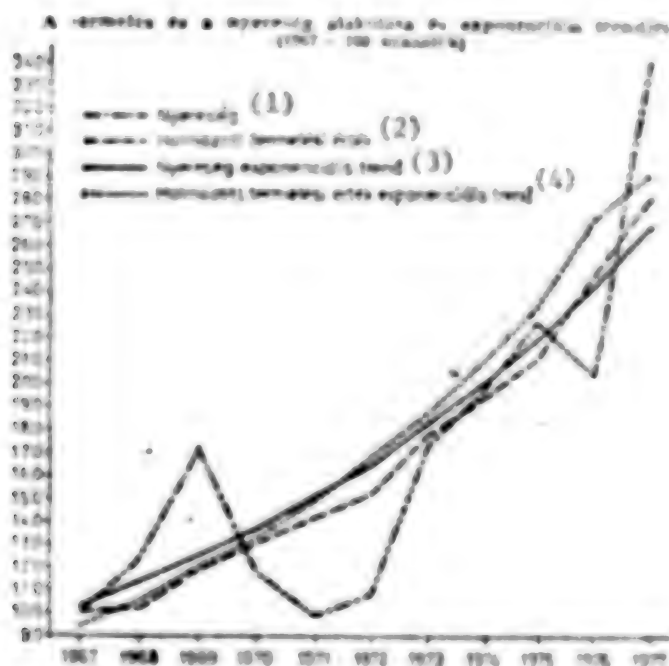
In the second place there was a significant amalgamation of state farms in the period examined. The number of farms decreased by 35 percent and cultivated area per farm increased by nearly 50 percent. Despite this the role of the concentration of area became of subordinate significance compared to the growth of production value per unit area in the increasing enterprise concentration. Production value per state farm increased 3.3 times between 1967 and 1977; about 27 percent of this growth can be attributed to the former while 73 percent can be attributed to the latter. Thus in the state farm sector the volume of internal accumulation and the effect of this in increasing production and income became the chief spring and fundamental determinant of enterprise growth.

For the state farms the larger area does not prove, in general, to be a factor ensuring an advantage in the efficiency or profitability of management. Indeed, in some state farms the large area, the great distance between units, contributes to efficiency problems, not least of all because of the considerable transportation costs.

## Enterprise Growth

Enterprise concentration has been very swift in this sector even disregarding the amalgamation of farms. On the basis of 1977 data 40 state farms have a concentration greater than average, this is 28 percent of all state farms. These provide 59 percent of the production of the sector and 67 percent of the developmental funds are concentrated here. Among these 40 farms this ratio is 37 and 42 percent in nine. It is clear that the activity of the largest farms determines the production and efficiency of the entire state farm sector. In the period examined the trend in efficiency change was determined by the activity of the most concentrated farms.

### The Development and Exponential Trends of Production and Profit (1967 equals 100 percent)



Key:

1. Profit
2. Accumulated Production Value
3. Exponential Trend of Profit
4. Exponential Trend of Accumulated Production Value

According to the graph the growth in profits exceeded the rate of growth in production in a few years of the period examined. The drop after 1969 led to a lasting lag in profits, which becomes determinant for the entire period. This is expressed in the fact that the exponential trend of the growth in profits fell below that for production, and remains lower to the end, although the magnitude of the lag seems to have become constant by the end of the period. The latter hypothesis is confirmed by intermediate

trends calculated for the years 1973-1977, according to which the ratio of growth in profits and in production almost cover one another but the growth in profits lags somewhat behind that for production. Finally, we can conclude that a greater growth in profits characterizes the beginning of the period while a greater growth in production characterizes the longer period thereafter. In regard to the efficiency of production expenditures this means that efficiency improved temporarily and then deteriorated; but with the passage of time the decrease in efficiency weakened somewhat.

It is quite common for agricultural economists, and especially enterprise leaders, to regard the ratio of industrial and agricultural prices or the change therein, unfavorable to agriculture, as the chief cause of the deterioration in efficiency. But according to approximations which provide a standard it is not true that in the period in question the price ratios became substantially more unfavorable in regard to agricultural production. According to Dr László Nemethi "agricultural producers prices increased by an average of 21.7 percent between 1968 and 1975 while the prices of materials not of agricultural origin used in agriculture increased by an average of 25 percent." ("Production Structure and Efficiency," a report at a session of the Agricultural Economics Section of the MKEF [Karl Marx University of Economic Sciences], Budapest, 1978, p. 13.) In an article titled "In the Wake of Declining Efficiency" Dr Sándor Lányfalvi writes that between 1970 and 1978 "the price level for agricultural products increased by a total of nearly 30 percent." And he adds: "In this same period the combined price level of industrial tools used in agriculture also increased by approximately 30 percent." (FIGYELŐ, No. 10, 1979.)

So these arguments seem unjustified according to which the changes in price ratios caused the deterioration in the efficiency of production.

#### The Real Causes

The tightening up of the system of state supports and income withdrawals made the conditions of management more difficult and restricted the possibilities for increasing profit in the broader sphere of the state farms. In the first 3 years of the 1970's the total of state supports did not increase--although developmental expenditures increased successively and the supports are largely tied to these--and remained almost entirely unchanged, with some variations. The total of payments into the budget did increase, especially in 1971 and 1973 but also in 1972. All of this--together with the increase in the prices for tools of production--contributed to a prolonging of the time for effecting investments, to making more expensive any new installations, to an increase in the number of uncompleted investments and thus to a shortfall in the planned increase in production.

The efficiency problem also arose, in a fundamental way, from the fact that the state farms, in their swift and broad technical and technological development, were not capable of adapting to the given conditions, to the industrial and agricultural price ratios and to the linked support and income withdrawal regulations or to the possibilities for increasing yields. As a result, despite an increase in yields, they were not able to overcome

the contradiction that embodied work was expensive as compared to live work. Thus, in the course of technical and technological development, the replacement of live work by embodied work causes an increase in the production costs for a significant part of the products. We might phrase this by saying that in these developments there were a significant number of innovations and changes which were not yet ready economically for practical introduction, or at least wide application, under the real conditions of the state farms. The swift progress in enterprise concentration made this contradiction more profound.

It is easy to see, if we think about it, that in the majority of the farms affected this concentration fundamentally increased the volume of mechanization and for this very reason made more bearable the deteriorating efficiency of production increases achieved by development and the increasing trend in production costs. The concentration helped the state farms to regularly increase their profits even despite the increase in production costs and the deteriorating efficiency. In the final analysis this decreased their "objective" sensitivity to costs, their readiness to deal with the increasing costs deriving from the increase in the prices of the tools of production. In reality an attempt to decrease costs was not expressed in the technical and technological innovations and in this respect the state farms presumably did not exploit these possibilities which were given for them and which could have been achieved within the sphere of enterprise management.

#### Sudden Changes

It is worth devoting attention to the fact that in the period mentioned there were great improvements in changing the efficiency of production, which were successively followed by sudden drops; in a word, they were periodic changes in efficiency. It can be established that the outstanding improvement in efficiency began in the year 1969, which had favorable weather. In the wake of this productive year there was a great increase in income which could be accumulated and state supports and the assumption of credit increased accordingly too. Investment activity was excessive in comparison to the real possibilities. Thereafter the developmental enthusiasm was almost automatically pruned (in the next year) by the drop in crop production and the state measures intended to "cool" the developmental excesses. The consequence of this was that in the course of carrying out the excessive investments they could not assure an increase in production sufficient for that efficiency required by the increase in expenditures. The necessary conditions for the excessive investments were not given in the supply of tools of production or in the construction capacity. And this starts over again every time there is a good crop; the state control mechanism again encourages great expansion enterprise accumulation.

Economic controls, and especially the forms of investment supports therein, do not encourage or aid the state farms to improve efficiency as a concentration process. At the same time the Center for State Farms is urging an

improvement in efficiency more and more strongly. Increasing profit to a greater degree than production has been made a chief requirement of the medium range plans and they regard this as a standard of evaluation in accounting too.

The state farms, even though the external economic conditions have certainly become more severe for them, have achieved this, that the worsening efficiency trend has weakened; beginning in 1973 the rate of growth in profits has been almost the same as that for production. This certainly shows that the enterprise management of the state farms is improving. The relationship between investments and the increase in production is more favorable; the increase in production is swifter as compared to the increase in expenditures. But the increase in supplementary activity has played a crucial role in this, which is well illustrated by the fact that while the production value, calculated at current prices, of crop production falling within the sphere of basic activity has been increasing by an average of 7.1 percent per year and that of animal husbandry by 10.3 percent per year the value of other agricultural production has been increasing by 33 percent per year and that of production outside of basic activity has been increasing by about 14.8 percent per year.

In order to improve efficiency in the period examined it would have been necessary for this to be supported by the development and transformation of the basic activity. This has not been done although it continues to be an indispensable requirement for the improvement of efficiency; indeed, it is even more necessary today and in the years ahead than ever before. It is now certainly true that the state farms must "manage to compensate for" the loss of income deriving from the shift in the ratio of industrial and agricultural prices. Under the conditions of industrial production today the agricultural enterprises can save primarily on expenditures. There are certainly unexploited reserves for this but they hardly offer more than is necessary to counterbalance the increasing prices for tools of production. The composition and price level of the supply of tools of production limit for the agricultural enterprises the technical and technological transformations needed to improve efficiency. Before all else, if a supply of modern industrial tools of production is created then the state farms can convert to utilization of technical and technological solutions which demand less energy and material.

8984

CSO: 2500



## FUTURE LABOR SHORTAGE DISCUSSED

Warsaw ZYCIE GOSPODARCZE in Polish No 41, 14 Oct 79 pp 1,4

[Article by Mieczyslaw Kabaj: "Management of Labor Resources"]

[Text] Labor resources constitute our country's greatest wealth. Full utilization and optimum allocation of these resources constitute an important strategic problem of socioeconomic development. Efficient management of labor resources will assume special importance in the 1980 because these resources will not grow as fast as in the past.

It is worthwhile to analyze this problem in the light of the current 5-year period experience and to draw certain conclusions regarding the policy for managing labor resources in the next few years.

## Labor Resources and Employment

We are dealing with a peculiar paradox: The growth of labor resources in the current 5-year period is still relatively high, amounting to 720-750 thousand persons, while the growth of employment has been significantly limited. In the 5-year plan, the growth of employment in the socialized sector of the economy was envisaged to be no more than 600 thousand persons. Employment in the socialized sector of the economy was supposed to grow by 500 thousand persons. During the years 1976-1978, the potential labor resources grew by about 850 thousand while the employment in the total national economy grew by 464 thousand persons. The difference amounts to close to 400 thousand persons. What happened to these labor resources? A decrease in the rate of growth of employment should show up in the form of an increase of the number of people seeking work. In the years 1975-1978, however, the number of persons seeking work not only has not increased but has actually decreased from 15.2 thousand in 1975 to 9.2 thousand in 1978. The number of vacancies stayed at about the same level and amounted to over 900 thousand in 1978.

What is the source of this paradox? To answer this question it is necessary to analyze the management of the growth of labor resources. Such analysis faces severe difficulties. They are caused not only by the lack

Let us examine the growth of gainfully employed population during the years 1976-1978 and 1978-1979. This is displayed in Table 1.

W tym samym czasie, kiedy w Warszawie odbywał się I Zjazd Komunistów, w Krakowie odbył się I Zjazd Komunistów w Wielkopolsce. W tym czasie, kiedy w Warszawie odbywał się I Zjazd Komunistów, w Krakowie odbył się I Zjazd Komunistów w Wielkopolsce.

1. Persons, in thousands	6. Variant (a)
2. Increase of labor resources	7. Variant (b)
3. Increase of the number of persons employed	8. Total
4. Difference	9. Socialized economy
5. Years	10. Nonsocialized economy

Estimate

Source: The data on the increase of the number of employed in the national economy are based on the 1979 Annual Statistical Abstract of the Main Statistical Office. The final results of the General Census of 1978 have not been published yet; they may introduce certain corrections to the Statistical Abstract, especially regarding the number of persons employed in agriculture.

The estimates presented in that table indicate significant differences between the growth of labor resources and the growth of employment. In the 1976-1978, the difference amounted, depending on the accepted variant of the growth of labor resources, to between 278 and 386 thousand persons, and in the years 1976-1979 it probably will amount to between 450 and 546 thousand persons.

The loss of previously anticipated labor resources results from four parallel processes:

- a. An increasing preference of women to use unpaid leave for bringing up children. In the years 1971-1975, the number of women using leave increased from 50 thousand to 219 thousand, i.e., by 169 thousand. On the other hand, during the 3 years of the current 5-year period, this number increased from 216 thousand in 1975 to about 420 thousand in 1978, i.e., by over 200 thousand.
- b. A significant increase of the number of people retiring. The number of newly awarded pensions and annuities amounted to 355 thousand in 1975, 411 thousand in 1976, 419 thousand in 1977 and 458 thousand in 1978.
- c. A decrease of vocational activity of certain population groups, especially the youth. In recent years, we noticed the phenomenon of an increased number of persons who do not go to work after finishing school and continue to be supported by their parents. We are not yet in the position to evaluate fully the scale and the causes of this phenomenon. It cannot be doubted, however, that it occurs on a larger scale than in the past.
- d. A considerable decrease of the growth of employment in the socialist sector of the economy which encouraged the vocational deactivation process of certain population groups and the creation of the so-called "alternate labor market."

#### The Choice Between Working and Retiring

If the preference for retiring stayed at the 1975 level, or the 1971-1975 level, the total number of persons electing to receive pensions or annuities would probably have amounted to about 1,050 thousand in the years 1976-1978. In fact, during this period, 1,288 thousand persons were awarded pensions and rents, i.e., over 200 thousand more.

This is not accidental. This development was determined by the new rules which permitted women to obtain full pension or annuity at an earlier time, before reaching the retirement age defined by the 1968 act. In 1975, women who had worked for at least 30 years obtained the right to retire 5 years early. Women who had not worked a full 30 years, obtained the right for reduced pension (90 percent) after reaching 60 years of age.

In 1978, Resolution 100 of the Council of Ministers was put into effect and it granted the right of early retirement (under the condition of having worked for a period of time specified in the general rules) after reaching the age of 60 for men, 55 for women and 50 for female teachers, guidance counselors and other employees of educational institutions.

These rules encourage an increase of the number of persons retiring. As anticipated, the impact of these rules was especially great during the period immediately after their introduction.

The second factor increasing the propensity to retire early (in accordance with these rules and the general principles) was a considerable increase in the level of the newly awarded pensions and annuities in relation to wages. The relationship of an average salary to an average pension awarded in specific years is presented in Table 2.

Table 2.

Year	Average Net Monthly Pay	Average Newly Awarded Pension	Ratio (Percent)
1975	3783	2255	59.6
1976	4116	2621	63.7
1977	4415	3080	69.8
1978	4684	3475	74.1
Growth rate (1975 = 100)	123.6	154.1	x

Source: Abbreviated Annual Statistical Abstract for the years 1976-1978

That comparison shows that the rate of increase of the newly awarded pensions was 2.3 times faster than the rate of increase of average pay. In result, the ratio of the newly awarded pension to the average pay increased from 56.9 percent in 1975 to 74.4 percent in 1978. Of course, this ratio was higher in the lower earnings brackets.

Thus, there was a basic change in the circumstances under which the choice between work and retirement was made. In the years 1976-1978, in comparison with 1975, retirement became relatively more profitable.

## The Social Limits of Deactivation

The evaluation of economic and social aspects of these processes is not simple. The phenomenon of the growing number of women taking the child-rearing leave should be treated separately. From the social, and to some extent economic, point of view this is a beneficial phenomenon. The problem arises, however, because it is not only the young mothers whose professional activity decreases but also the population approaching the retirement age, especially women.

A decrease of labor resources by almost 600 thousand persons during a period of 4 years, i.e., by almost one half of the total expected increase for the whole 5-year period, is not a second-rate problem.

What follows is the explanation of the peculiar employment paradox of the current 5-year period which consists of a deepening shortage of workers in the labor market while there is a relatively large increase of population of the working age and a significant slow down of the increase of unemployment.

The situation in the labor market is also determined by two additional structural factors. The first factor is the different level of education of the age group to which the youth starting to work belong and of the retirement age group, or of the group who are approaching that age. The level of education of the latter groups is considerably lower than that of the former. Relatively, a higher percentage of the older workers perform simple, heavy work, devoid of social prestige. This means that it is not simple to find candidates for the positions vacated by them. But the process of eliminating or mechanizing these positions cannot take place in such a short time and at a rate proportional to the accelerated process of early retirement.

The second factor is the composition of the group taking advantage of early retirement from the point of view of the type of work they perform. Lack of data and detailed records make it impossible to perform a quantitative evaluation of this composition. It must be supposed, however, that the workers performing the heavy, unattractive and unprestigious work are the ones who most often take advantage of the opportunity to retire early. This aggravates the shortage of candidates to perform that kind of work, a shortage that already existed in the past. Consequently, the complications and turbulence caused by these factors may be greater than it would appear from the overall balance sheet of labor resources.

The above comments indicate the need to review some assumptions and consequences of the policy prevailing in the years 1975-1979 to lower the retirement age for numerous population groups.

It seems that these decisions were based mainly on social and employment considerations. The social considerations responded to the need to make



it possible for the people in poor health, who could not fully cope with work, to retire early. The intent was also to reduce so-called "social employment." In fact, as could have been anticipated, the persons retiring under the provisions of Resolution 100, came from both the so-called "social employment" category and from the highly skilled and highly efficient group of workers. The deactivation of the latter group of workers is highly undesirable both from the social and the economic points of view.

If the social objectives were the only reasons for the early retirement policy, then a flexible age limit would have been introduced to provide the possibility of early retirement and at the same time to provide material incentives to continue working to employees who were still in good health. In this way it would have been possible to achieve the social objectives without decreasing labor resources to such a considerable extent. Resolution 100 of the Council of Ministers introduced an inflexible solution which permitted early retirement. This decision possibly resulted from, *inter alia*, employment considerations, that is from the desire to vacate positions for the new graduates under the conditions of not only decreasing growth but also of decreasing level of employment in the socialized sector of the economy. This interpretation can be clearly supported by the fact that Resolution 100 of the Council of Ministers specified the possibility of female teachers and guidance counselors retirement at the age of 50.

The analysis of economic aspects of the deactivation processes is tied to the evaluation of the policy in the field of employment. It must be stated at the start that independently of social considerations, deactivation means the transfer of a large group of workers from the field of producing the national income to the field of distribution of that income. A worker who is able to work and retires early releases his claim on the wage fund (average 4,684 zloty per month in 1978) and at the same time imposes a burden on the pension fund (appr. 3,484 zloty), the difference amounts to 1,200 zloty and often less. Such a worker, however, ceases to produce national income. Very often such worker will not be replaced. Thus, there will be an idle machine, a closed window in the post office or a vacancy in commerce, transportation etc. It seems that the loss to the economy caused by the event exceeds many times the achieved benefits.

#### The Employment Gap in the Service Sector

In conjunction with the above discussion, it is worth our while to review the disposition of labor resources in the years 1976-1978. The 5-year plan postulated a considerable acceleration of the growth of employment in the service sector and in agriculture. Also, a fast increase of employment in the skilled tradesmen and private enterprise sectors was anticipated. During the years 1976-1980, the working population in the socialized economy was supposed to grow by 600 thousand persons and in the

nonsocialized economy by 500 thousand persons. During the years 1970-1978 that population grew by 422 thousand persons in the socialized economy and by only 42 thousand persons in the nonsocialized economy.

The composition of working population in the national economy in terms of major categories has undergone only minor changes. The share of employment in the service sector increased from 29.5 percent in 1973 to 30.2 percent in 1978. The increase of employment in the service sector was faster than in industry and construction. Due to the general deceleration of the growth of employment, however, it was only half as fast as in the preceding 5-year period.

In the nonsocialized sector of the economy, except agriculture, the percentage growth of employment was much higher than in the socialized sector but still it was much below the targets of the 5-year plan.

The central strategic problem of the employment policy in the next few years will be how to eliminate the gap in the service sector. Despite an only slight increase of employment in relation to the need and to the level reached by other socialist countries, the situation in this field has deteriorated in recent years.

The share of service sector employment in our economy is one of the lowest in Europe. Using as the base the share of services in selected countries in 1976, we can estimate the magnitude of employment necessary to achieve a comparable structure in our economy. Thus, in relation to Czechoslovakia, the service sector employment should be increased by over one million and the commercial sector employment by over one-half million; in relation to Hungary, the service sector employment should be increased by 700 thousand (and the commercial sector employment by 300 thousand). Additionally, on the basis of the rate of change in our employment structure in the years 1971-1976, we have estimated the number of years required to catch up with a number of countries in the development of services and the year in which we will achieve the share of employment in the service sector and in agriculture will be achieved by those countries in 1976. Assuming that the rate of increase of employment in the service sector does not accelerate, we will reach the level of Czechoslovakia in the year 2000, of the German Democratic Republic in the year 2011, of Hungary in 1993, of Italy in 2026 and France in 2050.

#### Conclusions for the Future

These estimates illustrate the scale of delayed development of services in our economy. These estimates provide the basis for conclusions regarding the need to accelerate the development of the service sector including the growth of employment in that sector. This will not be possible under the conditions of continuing deactivation of resources and without creating the conditions and incentives for people of retirement age to keep on working. If we want to improve significantly the functioning

of the service sector, we will have to employ some of the labor resources who were deactivated in the recent years. Additionally, it is worth noting that one of the chief arguments for decreasing the level of employment was the shortage of raw materials and energy. The services are one of the sectors of the economy which is characterized by the lowest material and energy consumption. Also, the services contribute to the lengthening of useful life of products and equipment by restoring them to their original condition. In the long range, this leads to a decreased use of materials in the whole economy. In view of the above discussion and the presented estimates regarding the employment gap in the service sector, the basic argument against increased employment is not supportable.

The question remains what to do next, which social policy can be considered most rational from the point of view of employees and the needs of the economy.

We should not abandon the social goals of the retirement policy but we should strive to use fully the qualifications, the experience and the willingness to continue working of the retirement age people. We should consider dual purpose solutions, i.e., such solutions which permit both the early and the late retirement and a broader than until now combination of retirement and part-time work.

It is necessary to consider the introduction of an incentive to continue working after reaching the retirement age, e.g., to increase the pension by a given percentage for each additional year of working. This percentage could vary (e.g., by 1 to 10 percent) depending on the needs of the economy and the acuteness of shortages existing in individual professions or lines of work. Also, in case of combining work and retirement, a rule more elastic than the one now in force could be introduced regarding the amount of permissible earnings without affecting the pension.

It appears that the optimal combination of social and economic objectives is required in the 1980's which will be characterized by a significant decrease of labor resources.

\*) Especially the following should be cited:

(1) The Council of Ministers directive dated 7 March 1975 on the subject of early retirement (DZIENNIK USTAW (The Register of Acts) No 9, paragraph 53); (2) the Act dated 23 October 1975 on the subject of increasing services for veterans and concentration camp prisoners (DZIENNIK USTAW No 34, paragraph 186); (3) Resolution No 100 of the Council of Ministers dated 21 July 1978 on the subject of early retirement of the workers of socialized places of employment in the period of time after 30 June 1979 (MONITOR POLSKI (The Official Gazette) No 26, paragraph 91).

8801

CSO: 2600

## COST OF GENERATING HEAT AND ELECTRICITY

Warsaw ZYCIE GOSPODARCZE in Polish No 41, 14 Oct 79 p 9

[Article by J.D.]

[Text] The cost structure of electric power and heat generation over the 1975-78 period has now been analyzed by the Department of Industry and Construction at the Ministry of Finances.

Over that period the generation of electric power increased by 19.6 percent, sales have increased by 19.7 percent and costs have risen by 25.1 percent, while storage of electric power was maintained at a constant level. The rise in the cost of electric power generation thus by far exceeds the other increases.

An analysis of the cost structure in the classification system pertaining to this branch of industry reveals that the items affecting the cost structure decisively are: production fuel (approximately 37 percent of the total generating cost), depreciation (approximately 16.5 percent) and foreign repair services (approximately 13 percent). Together these three items add up to approximately 66 percent of the total cost of electric power generation, but the costs of the different individual items follow each a different trend. Thus, for instance, production fuel dropped its share of the total cost from 38.2 percent in 1975 to 36.2 percent in 1978. The depreciation cost remained within the 16 percent of the total cost. The cost of foreign repair service, however, became a steadily increasing part of the total cost. All other items contribute much smaller shares to the total cost and, furthermore, their percentages of the total cost do not change significantly. Noteworthy are wages and surcharges, which tended to decrease from 7.9 to 6.9 percent over the given period.

A greater differentiation is manifested in the dynamics of the individual cost items. The most significant and important cost items show a rise at moderate rates: the cost of production fuel by 18.7 percent, the cost of depreciation by 27.4 percent and wages by 8.9 percent. Most dynamic among the items sharing most in the total cost are foreign repair services, whose contribution to the total cost increased by 61.9 percent.

The cost structure analysis pertaining to heat generation over the 1975-78 period indicates that here the dominant item is production fuel, its share of the total cost having increased from 48.6 to 51.3 percent and tending to certainly increase further. The contribution of other cost items (such as depreciation, repair services, etc.) to the total cost ranged here from 4 to 7 percent and only their combined cost amounted to 10 percent of the total cost.

A cost item with a steady rising trend, both in electric power generation and in heat generation (although not very significantly rising in the latter case) are expenditures for power equipment repair and transmission networks. The rise in repair costs is caused by several factors: above all the steady increase in the number of power plants and networks, then the need for full utilization of all generating equipment (including the oldest and most used), also the rising cost of repair work done by the jobbing method and the rising cost of labor and materials when repair work is done by the managerial method.

#### Unit Costs

The rise in power generation costs is confirmed by calculation of the unit costs of the basic commodities which this branch of the industry provides.

The cost of generating 1 M<sup>2</sup> of power rose by 4.30 zlotys from 1975 to 1976, by 3.30 zlotys more in 1977 and by 10.80 zlotys in 1978.

The unit cost of electric power is thus a continuously, though not uniformly, rising quantity and the overall energy situation in the country contributes to this. The cost of 1 M<sup>2</sup> rose by an overall 23.40 zlotys over the given period of 3 years.

The unit cost of heat, i.e., the cost of 1 Gcal is also characterized by steady dynamics of rise. Over the given period of 3 years it rose by an overall 9.00 zlotys.

The difficult energy situation in Poland does substantially affect the rising cost of electric power generation. During the 1975-78 period all the installed capacity, including also uneconomical electric power plants was utilized on a generally continuous basis for generation of electric power. This caused a rise in the fuel consumption. With the average fuel consumption index equal to 160 kg/MWh, for instance, the Jaworzno electric power plant No 1 consumed 383 kg/MWh, the Zabrze electric power plant consumed 500 kg/MWh and the Szebierki electric power plant consumed as much as 542 kg/MWh. Another factor contributing to the rise in the cost of electric power generation is the worsening quality of coal delivered to electric power plants (more frequent equipment failures, longer repair time, etc.).



An essential factor in the rising cost of generating electric power and heat are also the changes in prices (including those which appear in construction cost estimates and put in effect centrally as well as by enterprise administrations for fiscal management. These price changes have particularly raised the unit cost of plant construction as well as the cost of repair and maintenance of electric power generating and transmitting equipment.

2415

CS0; 2600

## WINTER TRANSPORT READINESS QUESTIONED

## Coal, Equipment Reserves

Warsaw GLOS PRACT in Polish 25 Sep 79 pp 1-2

[Unsigned article: "Transport In Front of the Winter: Tire Pressure--Preparations Continue--Equipment Has Not Expanded--Insufficient Supplies of Traction Coal and Chemicals--Continued Shortage of Tires and Batteries"]

[Text] The preparations of the railroads and motor vehicle transport for work in late fall and winter is in full swing. It concentrates on the provisioning of the technical support facilities with supplies and raw materials, fuel and spare parts, and the preparation of equipment and energy-generating installations.

Not are the people forgotten on whom the outcome of the battle will ultimately depend. What is at issue here is to assure the best possible social and industrial safety conditions for all workers of the railroad and road transport system and the teams engaged in clearing away the consequences of snowstorms and sharp frosts.

A specific program for these preparations, based on the experiences of the past year, has been put together in the transport ministry already in June of this year. In the course of the summer months the check-up and maintenance of the technical equipment has been achieved and a list of requirements has been drawn up. It exceeds by a significant margin the stock in hand.

And this is what the situation looks like. Let us begin with the railroads

from the experience of the first quarter the correct conclusions have been drawn here by establishing for the most difficult part of the year a special organization of the services responsible for maintaining the passability of the tracks. Thus, specially assigned teams will operate to remove snow and thaw out switches, to service stationary railroad installations, to remove snow from passenger and freight platforms and loading yards and to load it on railroad cars.

Special teams will also be directed to the rapid replacement of damaged rails and switches. Intervention brigades composed of people specifically trained for autonomous operations and well supplied with technical equipment will be sent to particularly threatened spots. These "flying brigades" will be assured of efficient communications: they will receive 1,000 radio telephones.

Snow removal from the railroad tracks will be effected by plows installed on suitably powerful locomotives. One plow will service 160 km of tracks, with the provision that in order to mitigate the situation patrol trips of plows on the lines most threatened by snow burial are being envisaged.

Track segments of a total length of 3,200 km are protected against snow drifts by permanent hedges or fences. In addition almost 1,300 km of portable snow fences have been accumulated which will be erected at the most threatened locations.

In addition to the snow plows the railroads have at their disposal 28 snow-clearing combines, 325 snow removers and 30 self-propelled flame-throwing devices for the unfreezing of switches. The volume of this technical equipment has not grown.

What is disquieting is the insufficiency relative to requirements of the stocks of traction coal at the stations and locomotive depots. Representations by the transport ministry to the Coal Sales Center for an increase in this year's allocation and its delivery by the end of October have not produced any results until now. It is obvious that this matter cannot be left to stay on the present course.

In the maintenance of the passability of highways the system in force until now will be continued. Accordingly 11,000 km of the overland roads most important for the economy and for transport will be cleaned on the patrol system. In case of necessity plows and sweepers will here work around the clock.

On 20,000 km of roads of secondary importance with regard to winter maintenance clearing will take place on an intervention system, and hence whenever significant difficulties occur. The users of the 74,500 km of highways of lesser significance, however, can reckon with their clearing only then when the equipment has dealt with the snow and icing problems of the more important thoroughfares.

During the preparations it was determined that 8,000 plows are required--yet, only 6,790 are available. And even though the arsenal of technical equipment is complemented by 500 general-purpose spreaders, 720 PS "WUKO" spreaders and 4,480 agricultural spreaders, a closer balancing of requirements with the stock in hand has shown that there may be shortages of equipment. There may also be an insufficiency in the volume of chemicals for the de-icing. Shortages exist also with respect to tires and batteries.

These shortages must be eliminated as fast as possible. Time is pressing!

## System Weaknesses

Warsaw ZYCIE GOSPODARCZE in Polish No 39, 30 Sep 79 p 7

[Article by Stefan Bienias: "Who Is Not Afraid of the Winter?"]

[Text] Preparations for the coming winter, as representatives of the municipal services assured me, were begun already in the spring of this year. In the first round they concentrated on organizational matters. A close analysis, conducted in March, of the operations of the urban transport works and the sanitation enterprises which are responsible for the maintenance of public transport and the passability of urban roads revealed many shortcomings in this sphere, both within individual enterprises and in the cooperation between them.

The division of tasks between the municipal services is precisely defined and should in theory not provoke any additional troubles. The sanitation enterprises are responsible for snow removal from the roads, and the transport enterprises for the clearing of the streetcar tracks. Thus they "operated" also last winter. Snow from the streets was removed the shortest distance, or onto the streetcar tracks. Thereupon the streetcar plow came along and threw the snow back onto the road. Then the motor vehicle plow came again and swept the snow back onto the tracks, and so on. There was in this no bad will or desire to do each other an evil turn. What was lacking was simply mutual coordination of activities between the interested units.

Even more painful in its consequences was the lack of synchronization of the movement of bus transport with the snow removal program. A significant number of buses on scheduled runs in urban side streets, where snow is removed last, got stuck in snow drifts already during the first substantial snowfalls. This made impossible an increase in the frequency of scheduled runs on the main transport arteries, where snow was systematically removed, and withdrew from circulation a substantial part of the rolling stock, at times for many days.

From these mistakes practical conclusions have been drawn. Rules have been set for communication and cooperation between the municipal services. These are to eliminate the duplication of efforts and the reciprocal augmentation of workloads. This work will be coordinated by urban staff groups headed by vice presidents and deputy town mayors.

The maintenance of public transport, the transport of people to their work and from work to their homes--this is the main winter problem. Already now alternative time tables for urban transport are being prepared which are adapted to the most taxing atmospheric conditions. The necessity of curtailing public transport on the lesser roads has been accepted as a principle, with a transfer of the largest possible volume of rolling stock to the main transport arteries whose passability must be maintained. The assumption in this is that the cessation or curtailment of transport on some routes should not last longer than two or three days.

This solution appears to be appropriate and reasonable. Instead of permitting the unnecessary waste of equipment stuck for several days in snowdrifts on the side roads, we can increase the frequency of runs on the routes already cleared of snow and passable.

There is one problem, however: the condition of the road surface of the main urban arteries. During the last winter about 7 million square meters of road surface have been damaged. It is true that this constitutes only 1.5 percent of the total road surfaces of urban streets, but the most severely damaged sections are the so-called roads of basic significance, where snow is removed with the highest priority. About 40 percent of these qualified for major or minor repairs. The removal of winter damage will be completed in October. However, the well-known miserable quality of even brand-new surfaces of our roads does not incite much optimism.

The curtailment of transport on some routes will not be accepted enthusiastically by all, especially among those living far from the main streetcar or bus lines. However, we must take account of the fact that the transport works and the sanitation enterprises are not in a position to ward off the consequences of an icy and snowy winter with their own forces. This stems above all from the insufficient volume of specialized equipment and troubles in its employment. We will talk about these problems further on in this articles, but for the moment we shall stay with organizational matters.

#### Organizational Variants

The material and personnel capabilities of the municipal services are set up and suffice for the maintenance of the normal functioning of our towns under the conditions of a mild winter, such as we had in the years 1975/76 or 1976/77. Hence in case of sharp frost or large snowfalls the help of other enterprises or work establishments disposing of appropriate equipment is indispensable. This concerns above all units subordinate to the ministries of construction, machine engineering industry, heavy and agricultural machine industry, as well as local construction enterprises.

In this second stage, as we may call it conventionally (the first stage being defined as one where the municipal services operate only with their own forces), the main effort will be directed at the cleaning of the streetcar tracks and the clearing and removal of snow from the main arteries of the transport network, the assurance of access to hospitals and work establishments, and the like.

One of the most difficult sectors of the winter campaign is usually the carrying away and "liquidation" of huge masses of snow. According to calculations of the MPO [City Sanitation Enterprise] in Warsaw, in case of a 25 cm snowfall the clearing of only the main intersections and roads requires the carrying away of 352,000 cubic meters of snow. Without the manpower and the technical equipment of other work establishments the MPO could not even dream of coping with such loads. In addition the snow that has been carried away must somehow be "liquidated." It cannot be thrown any old place, but



and be taken to pre-designated dumping areas in order that in case of a sudden thaw the running off of the water to the closest collector can be assured. And for this the aid of other work establishments is required.

The experience of last winter has shown that the cooperation between the municipal services and the work establishments does not always assume the best shape. Equipment was supplied with large delays, the excuse being one's own difficulties or needs. Yet, one of the most important matters is the fastest possible clearing of the snow immediately after the intensification of the downpour. The systematic removal of the snow from roads and tracks prevents the formation of drifts and the packing of snow on the roadways. Letting this most opportune moment slip by creates many additional difficulties and makes the work much harder. We have the hope that this year the particular interests of enterprises will not prevail over the interest of the whole. Much in this depends on efficient work of the staff groups, rapid exchange of information and disposability of equipment and manpower.

It is necessary, however, to reckon also with the possibility of even greater snowfalls and frosts than occurred last winter. This would be a true natural calamity, but we nonetheless have to face up to it. For that case the full-scale inclusion in the snow removal program of work establishments and the staff of offices and administrations is envisaged, a mobilization of the entire society.

Much depends on the close cooperation of the meteorologists with the municipal services. This is of particular significance for the rapid undertaking of preventive activities. In the battle with the snow the right timing for the start of a counterblow--to use military terminology--is of extraordinary importance. The spreading of salt or other chemicals on the roads already before the precipitation of the snow prevents its accumulation on the roadway and counteracts ice formation. If this is done only on roads already covered by a layer of snow, the results will be only half as effective. Hence a rapid exchange of information on any expected weather changes and their correct analysis is necessary. To this end a new and closer mode of cooperation between the municipal and the meteorological services has been established.

We now come to the key point of the program of winter preparations, to the material base of the municipal services.

#### The Technical Base

It is an open issue whether the transport establishments and the sanitation enterprises should dispose of a volume of equipment such that they would be fully independent and could on their own deal with all atmospheric conditions.

Certainly this solution has much in its favor. It would then not be necessary to pull the workers of other establishments from their workplaces, and many unnecessary disputes and mix-ups would be avoided. However, from a purely economic point of view this is an irrational solution. The specialized

winter equipment, especially the heavy equipment, finds no applications in summer. A caterpillar bulldozer does not yield itself for transformation into a road-sprinkler truck, for instance. Through three quarters of the year it has few uses for the urban sanitation enterprise. But what sense would it have to equip an urban sanitation enterprise with a large quantity of implements which are indispensable only under extreme conditions?

The matter is similar with dump trucks. In winter the need for them increases hugely owing to the snow removal requirements, but in summer the need for them is much less. The main efforts of the municipal services therefore go in the direction of assuring the greatest possible universality of the equipment owned.

Water sprinklers are transformed in winter into sand and salt spreaders or are equipped with plow shares. Similarly with heavy trucks, dump trucks, and the like. On the other hand, heavy equipment is borrowed for the winter period from the construction enterprises which at that time work at a reduced pace.

Such a solution of the problem, however, must be considered an image of the future. At the moment the main problem consists in the fact that the sanitation services do not even possess the most indispensable specialized equipment. In the entire country we have barely 1,300 such units. During the last winter a significant part of the rolling stock was heavily damaged. The deliveries of new units barely made up for these losses. Thus we cannot count on an improvement and must even reckon with a certain deterioration, at least in some sectors. For instance, the allocation of undercarriages for the motor vehicle stock of the municipal economy will this year be smaller than it was last year.

The technical condition of the majority of the vehicles is disastrous, especially after the last winter [when] in Warsaw every day 25 percent of the plows were taken to the repair shops. But the most threatening matter is the lack of batteries, spare parts, tires and tubes. The main enemy of automotive equipment is frost and ice. During a temperature drop the starting of all types of vehicles becomes an important problem. Old batteries discharge quickly, and new ones are not available. What is more, even new batteries are ready for scrapping after only a few days. Their reclamation is a labor- and time-consuming endeavor, and the scarcity of technical equipment makes broad-scale operations in this sphere impossible. Matters are similar with respect to tires and tubes. And how is a vehicle with "bald" tires supposed to deal with iced roads? There is also a shortage of spare parts. Hence vehicles are repaired in the only possible manner, by dismantling the parts from other vehicles in a still worse technical condition. An additional difficulty stems from the narrow base of repair shops. On the average 20 to 30 vehicles fall on one workplace, whereas the norm is 7 to 10. But how long can such a state of makeshift arrangements last?

But this is not yet the end of the troubles. From December on all vehicles should be switched to IZ-30 fuel. It is true that IZ-20 fuel oil should

theoretically retain its properties to a temperature of -18 degrees [Celsius], but as the experience of the last winter has shown the paraffin is precipitated out of it already at a temperature of -8 degrees. There is still some time until December, yet it must arouse disquiet that until now not a drop of IZ-30 has been delivered, not to speak of IZ-50, the oil most resistant to low temperatures.

If difficulties with fuel supplies can be explained with certain circumstances of an objective nature, the lack of salt for spreading on the roads is entirely incomprehensible to me. The economic requirements of the municipal economy this year came to 120,000 tons of salt, while the [total] needs amount to roughly 180-200 thousand tons. Until now 60,000 tons have been delivered instead of 100,000 tons. This means that in the most difficult period of the winter the transport system will have to be burdened with additional salt transports.

The urban transport establishments find themselves in a similar situation. It is true that by the end of the year they will have significantly increased their rolling stock. Warsaw, for instance, receives 300 "Ikarus" and 250 "Berliet" [buses]. But the basic problem--that of the efficient operation of all vehicles--has not been solved. About 4,000 batteries are lacking, 25 percent of the vehicles are running on bald tires, reserves are minimal and literally suffice only for a few days. There is a lack of spare parts for buses and streetcars. If this situation does not improve in the next few days, Warsaw is threatened by serious curtailments of streetcar transport since the stocks of spare parts and motors have been almost entirely run down during the last winter.

The issue of supplying batteries, tires, spare parts and fuel for the municipal services has proven to be too complicated and knotty to be resolved at any level lower than that of the ministries. Once again the statement that human memory is short and treacherous has found its confirmation in practice. The solemn assurances of producers, who themselves had intensely felt the results of the severe winter, that supplies will be implemented on schedule and in the appropriate quantities went into oblivion together with the arrival of spring and summer. It looks precisely as if everyone were once again reckoning with a mild winter. For quite some time now a lively correspondence has been going on between the interested ministries--the Ministry of Administration, Local Economy and Environmental Protection on the one hand, and the ministries of chemical industry, machine engineering industry, and heavy and agricultural machinery industry on the other hand. In the last few days the optimistic news has come from the Ministry of Chemical Industry that IZ-30 and IZ-50 winter fuels will be delivered in the nearest future. One must hence have hope that other ministries also will stimulate the units subordinated to them into a rapid implementation of the orders of the municipal services. This is in any case in their own best interest, since no one can guarantee that the climate of the coming winter will be more generous toward us.

#### PHOTO CAPTION

1. By 15 October all repairs of specialized winter rolling stock are to be completed.

ECONOMIC COOPERATION BETWEEN BOSNIA-HERCEGOVINA, VOJVODINA

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 2 Oct 79 p 2

[Article by M. Mirnic]

[Text] Vojvodina has a lasting need for coal from Bosnia-Hercegovina, as well as for a number of other products, while Bosnia-Hercegovina is particularly interested in increased "imports" of wheat from Vojvodina.

All conditions indicate that cooperation between labor organizations in Bosnia-Hercegovina and Vojvodina, and the overall economics of these republics, will continue to develop and advance. In brief that was one of the basic conclusions from the recent discussions of representatives of the economic chambers of Bosnia-Hercegovina and Vojvodina, including the regional economic chamber of Tuzla and the "Titovi rudnici" (Tito mines) organization of associated labor. The talks were held in Tuzla.

The discussions considered current problems of commercial cooperation between labor organizations of Bosnia-Hercegovina and Vojvodina, and in that context, matters of supplying Vojvodina consumers with coal from Bosnia-Hercegovina, and the milling industry of Bosnia-Hercegovina with wheat from the fields of Vojvodina.

The conversations confirmed that Vojvodina has a lasting commitment and interest in coal from Bosnia-Hercegovina, specifically from the Titovi rudnici mines. Among other things, this was illustrated by the example that this year the Titovi rudnici coal mines will deliver about 1,100,000 tons of coal to Vojvodina. It was also stated that in the coming years the needs of Vojvodina consumers will be even greater, amounting to 1,700,000 tons annually, of which industry alone will need about 600,000 tons. In that context, Vojvodina representatives noted that this year the Titovi rudnici mines did not fulfill their obligation for coal deliveries in the specified time periods, and that in the coming period this should be corrected.



The reason for this year's shortfall in coal deliveries, however (when 104,000 tons less than contracted were delivered), is clear and is chiefly of an objective nature, at least as far as the deliverers are concerned. At the same time the Titovi rudnici representatives pointed out the magnitude of their potential, the geological reserves of about 5 million tons, but also the lack of facilities and resources for rapid exploitation. Opinions stated in this regard directed attention at labor and resource pooling by the producers and the major consumers, on the profit principle. In this connection agreement was reached on the need for forming a coordinating body with the assignment of finding a model by which the interested organizations of associated labor could jointly finance new mine facilities.

Concerning the present situation, it was agreed that Vojvodina consumers would be offered supplementary quantities of coal from the Miljevinina mine (10,000 tons), from Gracanica (15,000 tons), and certain quantities of screened coal from the Tito-Banovici mine.

In speaking of supplying the Bosnia-Hercegovina milling industry with wheat from Vojvodina, it was determined that the contracted quantities now agreed to cannot even come close to satisfying the needs of Bosnia-Hercegovina. That was also the reason for the suggestion that a new meeting of interested organizations be called, primarily of the Bosnia-Hercegovina milling industry and the wheat producers of Vojvodina. The basic goal of this meeting would be to resolve disputes concerning contracting and shipping wheat.

The discussions also touched upon other current matters, some of which were being raised for the first time at such a meeting. For example, there was a discussion of joint development of tourism in border regions (of the two republics), and talk of self-management agreements between the Boris Kidric coke and chemistry plant at Lukavac, and the oil refinery at Novi Sad. Another topic was the implementation of the agreement on salt deliveries from the SODASO organization of associated labor at Tuzla to consumers in Vojvodina, and yet another was the matter of supplying the ceramic disc plant in Bratunac with earthen clay and other supplies.

It is obvious that there are sufficient reasons and circumstances for continuing and expanding cooperation.

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